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TRANSACTIONS

OF THE

TWENTY-SIXTH SESSION

OF THE

American Institute of Homœopathy,

HELD IN CLEVELAND, O., JUNE 3, 4, 5 AND 6, 1873.

NEW SERIES.

PHILADELPHIA:
PRINTED BY SHERMAN & CO.
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PREFACE.

THE volume of Transactions of the Twenty-sixth Session of the American Institute of Homœopathy is herewith submitted. The delay in issuing the work has been due to circumstances entirely beyond the control of the Committee of Publication.

The Committee of Publication deem it their duty to call attention to the fact that three of the papers (there may have been others) printed in this volume as parts of the reports of various bureaus, have been published elsewhere since the meeting of the Institute, viz.: "*Anal and Rectal Fissure,*" by William Eggert, M.D., printed in the North American Journal of Homœopathy; "*Diet of Infants and Young Children,*" by John C. Morgan, M.D., printed in the American Journal of Homœopathic Materia Medica, &c., and reprinted in pamphlet form; "*Clinical Cases in Ophthalmology,*" by Charles H. Von Tagen, M.D., partially printed in the Ohio Medical and Surgical Reporter. The committee would ask the Institute to take action looking to the protection of its reports and papers, at the coming session.

In behalf of the Committee of Publication.

ROBERT J. MCCLATCHEY,
General Secretary.

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AND

MISCELLANEOUS PAPERS

OF THE

TWENTY-SIXTH SESSION

OF THE

American Institute of Homœopathy.

VOLUME II. NUMBER 3.

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XXII.

PROCEEDINGS

OF THE

TWENTY-SIXTH SESSION

OF

THE AMERICAN INSTITUTE OF HOMŒOPATHY.

HELD IN CLEVELAND, O., JUNE 3, 4, 5, 6, 1873.

PRELIMINARY MEETING.

THE "preliminary meeting" was held by invitation of Dr. N. Schneider, of Cleveland, at his residence on Prospect Street, on Monday evening, June 2d. A large number of members were present, who exchanged fraternal greetings, renewed old friendships, and formed new ones. Dr. Schneider and his wife dispensed their bounteous hospitality with a courtesy and grace which charmed the hearts of all their guests. The presence of a number of distinguished citizens of Cleveland added to the dignity of the occasion, while a large number of ladies graced the assemblage by their presence.

FIRST DAY.

The Institute convened in the Hall of the Cleveland Homœopathic Hospital College, on Prospect Street, at 10 o'clock, A.M., and was called to order by the President, ALVIN E. SMALL, M.D., of Chicago, Ill.

THE PRESIDENT: As we need wisdom from above to direct us in all our proceedings, I will call on the REV. DR. BAKER, of Cleveland, to open our session with prayer.

The REV. DR. BAKER then offered up an impressive prayer, in which he invoked the Divine blessing on the Institute and its membership.

The President announced the order of business as arranged by the Executive Committee, which was unanimously adopted.

J. C. SANDERS, M.D., of Cleveland, was then introduced by the President, and delivered the following

ADDRESS OF WELCOME.

Mr. President and Ladies and Gentlemen of the American Institute: Wearied by your journeyings, and worn by labors and responsibilities and anxieties you have left behind, and come from States near and far away, Ohio, vast, rich, mighty in peace and in war, in greeting salutation unfurls over you her banner of power and glory. And Cleveland, her fairest daughter, whose feet are washed by the commerce-whitened waves of Erie, whose sinews are iron and steel, whose brow is forest-crowned, whose heart is warm with love and nurturing care toward her own, and whose home altars glow with generous hospitality toward the worthy stranger within her gates, bids you welcome and tenders to you rest.

No other class of men so needs rest. For this you could well incur the expense of time and money, and for this your own families could well bid you Godspeed, but the sick and suffering and the soon-to-die whom you have left behind still plead with you as with angel voices that this respite shall be improved, not for your own, but for their advantage. And all the sick and suffering and dying in our vast humanity could well join in this importunity.

For in your corporate capacity as the American Institute of Homœopathy you represent the most advanced truth in medicine, the only rational philosophy of cure, and the surest and safest therapeia, and you meet again to unfold and make known to each other the treasured results of another year's study and experience.

How important then it is that each brings to this altar his best gift, and gathers therefrom some truth or suggestion of research or experience not before his own, that shall be a substantial answer to this prayer now breathing in the chambers of the sick and dying all over the land. And how essential it is that no waste is made of these precious possibilities in parliamentary circumlocution and routine, or in Bacchanalian revelries, or by obtrusions of themes foreign to medicine, or by discussions of self-evident propositions, or in vauntings of puerile and petling ideas, or by the effervescence of personal figures, or in the display of the brandished and clashing steel of rancorous debate.

With the eyes of all who feel the blight of disease, or the curse of pain, or the shadowy touch of approaching death turned eagerly toward you, with the immortal Hahnemann in saintly and almost speaking portraiture before you, and with homœopathy, the divine truth which flashed through his intellect and for which the world waited through the ages, as your *genius loci*, his left hand on your altar, his face radiant with heavenly benedictions, his right hand pointing onward to the halcyon era of universal sway—what inspirations have you not to strike hands in loyal and cherishing brotherhood and move toward a higher plane of thought and discussion than ever before attained, and make this session of the Institute memorable in the history of medicine.

ANNUAL ADDRESS.

THE PRESIDENT then delivered the Annual Address, as follows:

Mr. Chairman of the Committee of Arrangements: It becomes my pleasant duty, as the representative of the American Institute of Homœopathy, to thank you sincerely for this kind and cordial welcome.

Nearly twenty years have rolled around since our Association received a similar welcome to hold its annual session in your beautiful "forest city." During the period that has intervened, it has undergone many changes in active membership. Some have gone to rest. Others in attendance at that meeting have taken back seats and seldom meet with us; but we rejoice to

find their places so well filled with young and vigorous members, who have come from the East, West, North, and South, to participate in the deliberations of this meeting. We, therefore, cherish a lively hope that the advent of our present session, like that of the former, will prove productive of the choicest benefits to yourselves and those here assembled. If, on our part, Mr. Chairman, this hope should fail of being realized, I am sure it will be to us a serious misfortune; but by no means the fault of your Committee. I therefore beg you again to receive our thanks.

Members of the American Institute of Homœopathy: Permit me to thank you for your kindness and mark of confidence in selecting me to preside over your deliberations during the present session. I accept the honor in humility, and with fraternal interest allow me to rely upon your kind forbearance and liberal aid, while with fidelity I strive to discharge the duties of the honorable position your suffrages have assigned me.

Our national body was the first in this country to organize as a national council of physicians having for its object "*the improvement of the science of medicine.*" How far the most faithful, if not the most faultless, efforts have been made to carry out this purpose, the records of twenty-five annual sessions must testify.

Of the *original members* of the Institute only about twenty have their names enrolled at the present time, and among these we find the names of four of the pioneers of homœopathy in North America and particularly in this country. I allude to Constantine Hering, of Philadelphia; John F. Gray, of New York; Jacob Jeanes, of Philadelphia, and F. R. McManus, of Baltimore, who, forty years ago, were representative men of our school. Their talents, learning and usefulness were such as commanded the admiration of the thoughtful, who very soon united with them and made common cause in behalf of homœopathic science. As these veterans have ripened in years, thousands have betrayed a fondness for training in their company. They have recognized alike the fundamental doctrine of *similia similibus*, and have exhibited a record of successful warfare against acute and chronic diseases that differs but little if at all; nevertheless, like men of independent thought, they have dif-

fered upon questions not absolutely settled. They have not agreed that a strict adherence to either high or low potencies is essential to the faithful observance of the homœopathic law of cure, and yet their unyielding devotion to the great discovery of Hahnemann, and their firm conviction of its being the corner-stone of therapeutics, as well as their manly toleration of minor differences, are brilliant examples which we are proud to claim as a righful inheritance.

In 1844, the number of physicians who practiced homœopathy in the United States was exceedingly limited. They were scattered over the entire country and enjoyed little or no opportunity for conference or exchange of views. It was only in some of the large cities that the privilege of conference was enjoyed, and the necessity for a more general co-operative effort to disseminate the principles and practice of our school was felt to be necessary, and the plan of establishing a general conference was agitated.

The result was the primary organization of this body, with which most of the isolated members of the profession became associated. And as in the human embryo the *punctum saliens* sends forth a vital influence to bring order out of chaos, so the animus of our American Institute, twenty-nine years ago, went forth to gather up materials to perfect its orderly organization.

It now has its greater and lesser subordinate organs to provide for nutrition and growth. It has seven bureaus to represent as many distinct departments. This number may be increased to ten, and be subdivided into twenty, in order to provide for the most perfect prehensile and locomotive endowments;—the former to gather and grasp from every contributing source; the latter to promote gradual advancement, to provide for locomotion, and thus prevent the Institute from falling into a state of masterly inactivity.

As a national body it is destined to increase in numbers and improve in quality from session to session. The genuine science of therapeutics, in connection with the immutable law that lies at the foundation of the *materia medica*, will shine more and more brightly until the mists of eclecticism shall finally disap-

pear, and the system of dangerous palliation of suffering shall cease to multiply the chances of dissolution. Let the fountain be pure; let each Central Bureau give out a refreshing stream, and finally, let every member work diligently and perseveringly in the right direction. Then errors will be corrected and a noble example will command the attention of all.

Auxiliary Associations.

Immediately after the first convocation of homœopathic physicians to organize a general body, societies were organized in several of the large cities and towns as auxiliary branches, in which were appointed various and earnest committees to work up and improve all the branches of medicine.

These societies have gone on multiplying until all the large towns and cities from Maine to California have each an efficient organization. The change that has taken place within thirty years is remarkable, if not surprising.

Not only in the towns and cities have these associations been formed, but in every county and State where the members of the profession are sufficiently numerous to form such a body.

We have a striking contrast between the late proceedings of the Massachusetts Medical Society and the Legislature of the State of Michigan. The former, chilled by the unhealthy moisture of the evening, has retired amidst thick darkness to indulge in a Rip Van Winkle slumber, while the latter has arisen, surrounded by the nameless influences of the morning, to plant homœopathy side by side with allopathy in one of the most flourishing universities of the West. The ball is still rolling.

Sixteen States have general organizations auxiliary to this body, while in each county and town and city there are tributary branches. This multiplication of co-operative bodies is now having a widespread influence; it is daily making inroads into every department of society. Its importance has been felt in halls of legislation, in empires, kingdoms and states, and its recognition elsewhere is now bringing about wonderful transformations in public and private charities. Even in our own General Government there has been a *quasi* recognition of our claims by the appointment of some of our fraternity to important posts

in the civil service of the country. We are safe in regarding this act decidedly prophetic and a good omen for the future.

The great activity that everywhere prevails in the advancement of medical science leads to the pertinent inquiry, viz., "Are the great central principles that lie at the foundation of homœopathic practice scrupulously maintained?" Errors are only to be tolerated when truth is left free to combat them. The only known law of remedial action must be permitted to shine as constantly and as brilliantly as the noonday sun, in order to behold in the clearest light the capability and power of rightly affiliated remedies. Patient inquiry into etiology, symptoms and pathogenesis, may seem like the tonsor strapping his razor in advance of his tonsorial skill, yet to be successful it is absolutely required of every practitioner to critically examine every individual case of disease, and carefully note the symptoms, and then to find as nearly as possible its counterpart in the pathogenetic symptoms of the corresponding remedy. Haste often leads the practitioner astray and fearfully diminishes his power over disease. A thoughtless rush to dangerous palliatives, such as hypodermics and sedatives, sends into the circulation a stream of deadly poison. There is less risk in patiently and carefully affiliating the proper curative at first.

We know that venesection will remove the intense pain of pleuritis and pneumonia very speedily; but it is fearfully expensive to vitality, while it increases the number of chances against the recovery of the patient. We also know that painful sufferings can be palliated by overpowering anodynes and anæsthesiæ. But he who makes the practice allowable as a rule, and regards homœopathy the exception, should ask the forbearance of this body while he reflects upon the wickedness of tampering too freely with the complicated machinery of human life. Let him listen to the appeal of the quaint emblemist:

Hold thy hand, health's dear maintainer,
  Life perchance may burn the stronger;
Having sufficient to maintain her
  She untouched may last the longer.
    When the artist goes about
    To redress her flame, I doubt
    Oftentimes he snuffs it out.

It is not right for any member of this Institute to claim to sail under the banner of homœopathy when his practice is a mere mixture of cathartics, counter-irritants, cold water, and starvation, and calculated to impede the progress of our cause; such a one would add no more to the respectability of our school than would a cipher add in value to a decimal fraction when placed upon its left.

We are pained to admit that such extravagance is quite too common. No one ought to take the liberty of professing our faith while at the same time he shuns it in practice. It would be infinitely better for society and mankind were he to turn from the error of his ways and shun hypocrisy. The only way of determining the value of our principles is by testing them in practice. And it is for this Institute to point out the principles and practice of homœopathy so plainly that the wayfaring mongrel, though a fool, need not err therein.

Our profession is a liberal profession, but it does not encourage the crime of treason against science, treason against this body, and treason against the health and wellbeing of man. Treason is a kind of liberty to be sure; it is rebellion. Traitors to good and true principles are ever on the road to judgment, and it would be better for them and this world, were Jove's choicest thunderbolts to hurry them into their province of liberty or freedom beyond the grave. True liberty and freedom are founded upon the rock of truth, and wherever this leads or directs we are at liberty to go.

The Materia Medica

Is one of the richest sources of practical truth for us to contemplate, and although imperfect, our gratitude is due to the sources from whence we have received it. Our members are in duty bound to remedy its defects if possible, and to aid the Central Bureau in its indefatigable labors in collecting new physiological provings from the most available sources. The privilege of proving new remedies is open to all, and were the entire profession to volunteer in this enterprise it would not be useless.

Nature is rich in materials; the mineral, vegetable, and animal kingdoms are held in perpetual contribution to her storehouse

of remedies, and the need of a more systematic and reliable library of Materia Medica is deeply felt.

The time has come for taking some action with regard to this matter. The multiplication of fragments will not suffice. We need a work that shall embody all that is known of pathogenetic materia medica up to the present time, so classified and arranged as to render it of the greatest practical value.

At the last session, held in the city of Washington, Professor Dunham presented a paper from Professor W. E. Payne, bearing upon this subject, eminently worthy of the earliest consideration. The time for efficient action in this matter cannot, without detriment, be delayed much longer. Already the questions, What ought to be done? and How ought we to do it? have been agitated by many members of this body.

From the vast stores of provings already at hand, the work of classifying and arranging may be committed to competent hands, with authority from this body to arrange and publish in a series of parts, of one hundred pages each, as rapidly as copy can be carefully prepared.

At a minimum price of one dollar for each part there would in all probability be an extensive demand for the work. But to commence an undertaking of such dimensions would require considerable money in advance. This might be secured by issuing a circular setting forth the nature, extent, and plan of the work to be accomplished, and asking subscriptions to start it. Were our national body to take the initiative in this grand enterprise and give to it an unqualified indorsement, it would afford some guarantee of its final accomplishment, and this would be carrying out one of its grandest purposes. In connection with this subject we have

Clinical Medicine and Surgery.

In this field of observation we look for facts to exemplify the effects of remedies. The Central Bureaus of these branches have labored diligently to show the relation that exists between the materia medica and medical and surgical diseases. They have the ordinary resources of private practice and the benefit of statistical information from the hospitals and dispensaries re-

cently established in many of our large towns and cities. It is a matter of the greatest interest, that in Boston, New York, Philadelphia, Pittsburg, Cleveland, Cincinnati, Chicago and St. Louis, we have flourishing hospitals, supplied with clinical, surgical, and obstetrical wards, together with departments for the eye and ear and pedal surgery; dispensaries, infirmaries, and asylums are scattered from the Atlantic to the Pacific coast; nearly all of them are living charities for dispensing homœopathic treatment to indigent sufferers. Is it not within the province of this Institute to suggest plans for the judicious management of these clinical institutions? to render them the exponent of true principles, and desirable sources for obtaining clinical facts and confirmation of the use of new remedies. If a uniform system of recording individual cases can be arrived at, these dispensaries will prove the most valuable means of acquiring knowledge, as well as experience confirmatory of physiological provings.

It accords well with the spirit of our endeavors to encourage the multiplication of these charities, and even in those places where only one physician monopolizes the field. These open channels for rendering gratuitous service to the poor are the beacon lights that attract and clear the way for introducing homœopathy into whole communities. They inspire the charitable and sympathetic who care for those bound down in poverty. In every community there are the deserving poor, by no means friendless, who often lie near the hearts of the opulent; they see their sufferings relieved by homœopathy and are drawn towards it, and the first opportunity that presents itself for acknowledging its claims is seized, and soon it becomes an institution of their household by adoption. The benign influence of homœopathy fairly wins wealthy converts to its favor; no arguments are so potent as facts. A single opportunity for making a fair exhibition of homœopathic practice will influence a whole people in its behalf. Callous and unfeeling indeed would be the busiest practitioner who could not mete out a portion of each day or week some advice and medicine for the relief of moneyless sufferers.

Our National Society is looked upon as a centre from which a widespread influence should emanate for the benefit of man-

kind. Therefore, let it instruct its Central Bureau of Clinical Medicine to point out rules which can be uniformly of service in establishing, conducting, and recording the practical operations of as many hospitals and dispensaries as in every community may be needed or can be supported. This would tend to improve and augment the science of medicine, for in every laudable pursuit practice makes perfect. If we would have our hospitals well provided with skill, let us look after the interests of

Medical Education.

What has been accomplished during the last year in this respect, and what remains to be done? We are proud of the step taken by the American Institute at its session of 1870 in Chicago, in recommending our colleges to adopt the regulation of a graded course of three years for students before passing them as candidates for the doctorate. This plan, to some extent, has been adopted and carried out successfully by several of our colleges; and yet to render the graded course still further efficient in elevating the standard of medical education, we need something more than the junior, middle, and senior courses of six months each. What ought we to do about it? Is it not within the province of this body to recommend a uniform standard of preliminary attainments, preparatory to entering the junior course. Is it not the duty of our colleges to adopt this rule, to insist upon its observance, and to so announce it. It is also incumbent on us to recommend and urge upon students the necessity of attaining to a certain standard of preliminary education, in order to be admitted on examination to the junior course of any of our legalized medical schools; and, in fact, to make it imperative on the part of the schools themselves to insist upon the observance of this regulation, and let each provide a board of examiners, before which all students shall pass before entering the college courses. Should this proposition be universally favored and uniformly adopted by our schools, our profession would cease to be disgraced by ignorant, illiterate, and uneducated adventurers, who always seek the easiest and shortest road to get a diploma. And here let me say a word on

Private Preceptors.

It is probable that a very great proportion of our members are, or may be, private preceptors, and with them rests the responsibility of encouraging men to pursue or not pursue the study of medicine, according to their apparent fitness in point of character and education. It is for them to exercise righteous judgment, and not to be in haste in encouraging useful tradesmen, well learned and skilled in their vocations, to abruptly abandon them for the sake of becoming indifferent doctors. For it is remarked, from observation, that such seldom rise to mediocrity, much less to eminence; besides, it is a shame to spoil good shoemakers, blacksmiths, carpenters and the like, to swell the ranks of indifferently qualified physicians. Unless, perchance, some honorable exceptions should claim consideration, it would better accord with justice to recommend them to persevere in their more useful callings. A resolute firmness on the part of this body to uphold and maintain right ground in this matter, would be indicative of an advance favoring medical education.

Within the last quarter of a century our school has made such rapid progress that nearly every state and county has felt its influence, and there has been an imperative demand for medical schools in which the science of homœopathy should form a part of the curriculum.

Such schools have been provided, and now act under legal charters that place them on a like footing with all the other chartered institutions. Their legal status fully protects them. But this is not all that is necessary. In their organic capacity they must provide for thorough instruction in all the branches in any way connected with medicine. The labor of teaching should be so divided among competent professors, that efficient instruction should be imparted in every department and subdepartment of the course. Three can profitably labor in the department of materia medica, pharmacology, and therapeutics, and as many in special pathology, diagnosis, and clinical medicine. The same number may profitably labor in the departments of surgery, surgical anatomy, and the homœopathic treatment of surgical diseases, and so on, including chemistry, anatomy,

(general and descriptive), aural and ophthalmic surgery, obstetrics, diseases of women and children, and forensic medicine, and as many additional branches as may be necessary and useful to perfect the course, thoroughly liberalize, cultivate, and discipline the minds of students, and fit them for the profession.

Eight medical schools in which homœopathy is taught are now in successful activity. This number is sufficiently large. Some think it would be far better if the number were less and the quality better. Many colleges indifferently supported and inefficiently conducted would in all probability accomplish less than a more limited number well sustained and ably conducted institutions. Whether the number be greater or less, let each seek for advantages and improvements that cannot be surpassed, and close their doors against such as have not that preliminary culture that would command respectful consideration as students, and then, on the other hand, let it be enjoined upon the schools to adopt the plan of three graded courses of six months each, with well-appointed teachers and ample means for practical illustration and class instruction in all the branches, with the provision for admitting students at any time to that grade for which their qualifications would entitle them. Our national body can sanction nothing short of this. Nevertheless our colleges have thus far fought a good fight and have kept the faith. The length and breadth of the country have been blessed by them, and more than a thousand of our best and most honored physicians and surgeons are proud to claim them as Alma Mater; and yet this noble progeny ever pray, that greater improvements in facilities and quality of instruction may be realized, in order to keep pace with the advancing spirit of the age.

The entire subject of medical education should come up annually in county, state, and national societies, until a brilliant response from our colleges shows them worthy of being hailed as the sources of light, crowned with the glory of usefulness and professional honor, because they have perfected facilities that cannot fail of swelling the ranks of our profession with finished scholars, polished gentlemen, and thoroughly educated physicians and surgeons.

Nearly related to medical education are

Our Literature and Books.

In a country of so vast an extent as ours, the periodical literature keeps up a bond of union and interest between isolated districts. The progress made in this department accords well with the times. Two quarterly and several monthly journals are constantly gathering up the fruits of observation and research, while others advocating private interests, circulate a knowledge of homœopathy and items of intelligence from shore to shore.

The power of the press is everywhere revealed, and in the service of truth it builds up human interests. It should never be the willing generator of puerile strife, but the propagator of noble principles. In medicine, it should be the channel of truth, new discoveries, and practical observations. A medical journal is out of its legitimate sphere when it becomes the propagator of doctor quarrels, throwing broadcast personal invectives, dogmatic implications, and insinuations of a personal nature. The press, when controlled by men of doubtful integrity, often proves a source of corruption, but when governed by good and true principles, it exerts a wholesome influence. When engaged in the cause of medicine, or in behalf of human health, its standpoint should be sufficiently elevated and pure to send forth, as from a fountain, refreshing streams to invigorate the careworn faculties of those engaged in professional life.

It is the duty of an editor while in the advocacy of any cause, to cherish liberal sentiments, and not be invidious or dogmatic in criticism. While it is his privilege to indulge in wholesome review, to point out errors and hold them up in the light of truth, it is not for him to mar the work, by going off in side-issues, a few malicious flings, and needless exaggerations and perversions, for it betokens a littleness of soul and a want of manly honor, which, to say the least, is sometimes humiliating in our medical journals. What should be expected then of our periodical literature? It will not be extravagant or exacting to expect that it will be the medium of conveying periodically to its patrons the latest achievements of science and of art in medicine and surgery; the latest record of scientific discovery, of

materia medica, and clinical experience. It should be the repository of reliable intelligence concerning climates, watering-places, and retreats for invalids, suffering in body or mind. It should contain well-written and exhaustive essays on the treatment of specific diseases, epidemics, and endemics, and the best means of guarding against them. It should discuss the sources of malaria, as well as the lethal intrusions upon the wings of the wind. It should interest itself in general sanitary measures, scan the sewerage and drainage of cities, point out what is defective and how to remedy it, and give explicit directions concerning the effects of pure water and other elements of hygiene in promoting the longevity of the human race. And while our periodical literature occupies this field,

Our General Literature and Books

Merit a passing notice. Every physician requires a library, to be increased as his interest ripens in professional knowledge. Already something creditable has been accomplished in the way of books. But more is needed. Exhaustive treatises upon one or two branches have been published. Other works are needed, to show the application of homœopathy to surgery; to diseases of the eye and ear; diseases of the lungs, heart, and chest, the alimentary and glandular systems, and the tegumentary tissues, nerves, nervous centres, &c. We want at least a hundred volumes, of full library size, which shall be exhaustive treatises upon as many different subjects, demonstrating the all-important fact, that homœopathy is universally applicable to all states and conditions of disease incident to the great variety and almost infinite number of tissues in the human organism. It is for this Institute to lend a helping hand to all enterprises looking to the ultimate object for which it was formed. And, finally, what shall we say of

The Future?

From the point where homœopathy first began, its course has been westward, until it has performed the circuit of the earth. Its first day is drawing to a close. The dawn of the second is already seen in the east, spreading its glories to the west. It

has reached our Institute, the oldest and most efficient national medical council on this continent, with eight bureaus, like so many mammoth columns to support it. Five-and-forty auxiliary branches and as many clinical dispensaries and hospitals; eight chartered medical schools, to keep it replenished with members; six or eight journals to advocate its claims; one hundred well-written and carefully prepared volumes, to aid in stocking the libraries of its members, which number from ten to fifteen hundred, and nearly all of which the product of the first historic period. And now opens up to view a glorious future—a still greater transformation of old physic, a far more extensive abridgment of heroic medicine, and the final glitter and sunshine of *similia similibus*, from the Atlantic to the Pacific coast, and "from the centre all round to the sea."

Dr. G. W. Swazey, of Springfield, Mass., moved that a committee of three be appointed to take into consideration the President's address and report thereon during the session.

The Vice-President taking the chair, put the motion, and it was adopted unanimously, whereupon the Vice-President appointed the committee as follows:

George W. Swazey, M.D., Springfield, Mass.
L. E. Ober, M.D., La Crosse, Wis.
Pemberton Dudley, M.D., Philadelphia.

The President (resuming the chair), announced the following appointments:

COMMITTEE ON CREDENTIALS.

T. F. Smith, M.D., New York.
N. Schneider, M.D., Cleveland.
T. L. Brown, M D., Binghamton, N. Y.

AUDITING COMMITTEE.

S. M. Cate, M.D., Salem, Mass.
E. C. Beckwith, M.D., Zanesville, O.
James H. McClelland, M.D., Pittsburg, Pa.

REPORT OF THE COMMITTEE OF PUBLICATION.

DR. R. J. MCCLATCHEY, *General Secretary*, presented the following report in behalf of the Committee of Publication:

The Committee of Publication respectfully report that they have prepared and had published a volume of the Transactions of the Institute, during the session of 1872, including the minutes of that session, the discussions thereat, and the reports and papers presented by the various committees and bureaus of the Institute, making a handsome octavo volume of 480 pages. Your committee were enabled to have this volume issued early in January, and mailed to such members of the Institute as were reported by the Treasurer to be entitled to receive a copy. In this way five hundred and forty-two copies were disposed of. Copies were likewise sent to all American homœopathic journals, and to a number of those published in foreign countries, and to several public libraries. The number of copies printed was eleven hundred, and those remaining on hand are stored in a place of comparative safety.

In consequence of vexatious delay in forwarding papers to the General Secretary, in several instances, the publication of the volume was hindered. The new regulations adopted by the Institute, regarding reports and papers, will, it is hoped, lead to an earlier issue of the volume to contain the Proceedings of the present session.

Your committee desire to express publicly, their thanks to Dr. C. R. Morgan, phonographer, for a complete report of the business, debates, &c., of the last session of the Institute.

Respectfully submitted on behalf of the Committee of Publication.

ROBERT J. MCCLATCHEY,
General Secretary.

The report was accepted.

REPORT OF THE TREASURER—"HONORARY ROLL."

E. M. KELLOGG, M.D., of New York, *Treasurer*, then submitted his Annual Report, which was referred to the Auditing Committee. (Section I, Art. XXIII.)

THE TREASURER said: *Mr. President and Gentlemen of the Institute.* For the first time since I have been Treasurer of this Institute, a period of seven years, I have the satisfaction and pleasure of announcing that the Institute is out of debt, and even has a small balance in the treasury. We should congratulate each other in this comfortable financial condition, and determine to maintain it. I will introduce a resolution at this moment, if it be in order, which would seem to follow as an act of justice as

well as of courtesy, when considering our flourishing prospects. It is as follows:

Resolved, That all members of the Institute, who have been members in good standing for twenty-five consecutive years, shall be placed on the HONORARY ROLL; and, while retaining all the rights and privileges of full membership, shall be exempt from the payment of further dues.

The adoption of this resolution will put on this honorary roll some eighty members, and this number will be added to year by year. I trust it will be adopted.

THE PRESIDENT decided the resolution to be in order, whereupon it was seconded and agreed to unanimously.

"LIBERTY OF MEDICAL OPINION AND ACTION."

DR. J. P. DAKE, of Nashville, Tenn.: Mr. President, I rise at this moment to offer a resolution, which, it seems to me, should be acted on at this juncture, before we proceed with any other business. It has reference to the recent outrageous conduct of the Massachusetts Medical Society, in seeking to injure the reputation and status of certain members of that society who are our honored brethren. We should give these bigoted medical men of Massachusetts our opinion of their conduct, and do what we can to hold up the hands of our brethren there who are fighting a glorious battle for freedom of thought and action. I would offer the following resolution:

Resolved, That the American Institute of Homœopathy protests against the recent attempt of the Massachusetts Medical Society, to brand as guilty of conduct unbecoming and unworthy of an honorable physician, such of their members as, having a thorough medical education and unblemished characters, conscientiously practice Homœopathy; that such action is subversive of freedom of thought in a science which demands the most untrammelled investigation, and aims a deathblow at any improvement in medicine; that it is an insult alike to the practitioners and the patrons of homœopathy, and that it must react with greatest force upon those who thus attempt to destroy characters and enslave science.

DR. W. H. WATSON, of Utica, N. Y.: Mr. President, I second that resolution. It is eminently fitting that this American Institute of Homœopathy, the oldest national medical associa-

tion in this country, should place the seal of disapproval upon this unconstitutional, un-American, unscientific, unphilosophical, illiberal, and discreditable action of the Massachusetts Medical Society. If this resolution be adopted, as I trust it will be, and unanimously, it will be sent everywhere throughout this broad land, and published in every newspaper in it.

The resolution was thereupon adopted unanimously.

THE PRESIDENT requested that members having papers on scientific subjects should present them to the Chairman of the Bureau to which they belonged.

BUREAU OF MATERIA MEDICA, PHARMACY, AND PROVINGS.

DR. I. T. TALBOT, of Boston, acting for the Chairman of the Bureau, Dr. Conrad Wesselhœft, of Boston, who was unavoidably absent, presented the report and papers of the Bureau of Materia Medica, Pharmacy, and Provings. Dr. Talbot announced the following papers as being in possession of the bureau:

Special Report of a Plan for the more thorough and proper Proving of Remedies and Notation of Symptoms; by J. P. DAKE, M.D., of Nashville, Tenn. (Section II, Art. XXXVI.)

Is the Re-proving of the Materia Medica possible under existing circumstances? And if so, can the great object of purifying it be attained in the way proposed by the advocates of re-proving? by WM. E. PAYNE, M.D., of Bath, Me. (Section II, Art. XXXVII.)

The Purification of the Materia Medica; by CHARLES CROPPER, M.D., of Oxford, O. (Section II, Art. XXXVIII.)

Provings of Fagopyrum esculentum; by DEXTER HITCHCOCK, M.D. Presented by T. F. ALLEN, M.D., of New York. (Section II, Art. XXXIX.)

Two Provings and a Résumé of Calcium Sulphite; by CLARENCE M. CONANT, M.D. Presented by T. F. ALLEN, M.D. (Section II, Art. XL.)

Proving of Eucalyptus globulus; by E. M. HALE, M.D., of Chicago, Ill. (Section II, Art. XLI.)

Report and Conclusions from a Physiological Proving of Vac-

cine on Sheep; by JONATHAN PETTET, M.D., of Cleveland, O. (Section II, Art. XLII.)

Sulphur in Acute Diseases; by CONRAD WESSELHŒFT, M.D., of Boston, Mass. (Section II, Art. XLIII.)

Verified Symptoms: A few Pathogenetic and Clinical Observations; by WALLACE MCGEORGE, M.D., of Woodbury, N. J. (Section II, Art. XLIV.)

DR. TALBOT then said that the Institute, at the last session, had directed the Bureau of Materia Medica, &c., to prepare a plan for the more thorough and proper proving of remedies and notation of symptoms. The paper prepared by Dr. Dake comprises an elaborate discussion of this proposition, and he would therefore call upon Dr. Dake to read it.

DR. J. P. DAKE, after a few preliminary remarks, read his paper with the above title.

THE PRESIDENT: The paper just read is now before the Institute for discusssion. Let me remark, before the discussion is proceeded with, that no speaker should address the Institute until he has been recognized by the Chair by having his name announced. If the Chair is not acquainted with the name of a member who rises to speak, that member should announce his name that he may be formally recognized before he proceeds to address the Institute.

DR. T. C. DUNCAN, of Chicago: The paper we have just listened to presents a subject of great importance; one which should engage the attention of every physician present. The scheme which has just been laid before us is a grand one, but I fear it is one the development and carrying into effect of which lies far in the future of this Institute, unless it be taken hold of in the most earnest manner possible. It occurred to me, however, while listening to the unfolding of the writer's plan, that the object had in view might be accomplished, approximately at least, by provers scattered all over the country; and perhaps reprovings might absolutely be conducted more satisfactorily in this way than by a college of provers assembled in one place. If the Bureau of Materia Medica were to inaugurate this work and lay down rules and regulations for its conduct, there would

be strong ground for believing that something valuable might be accomplished.

DR. PEMBERTON DUDLEY, of Philadelphia: It is not long since I read a paper from the pen of Dr. Dake, and for the pleasure and profit derived from its perusal I desire to tender him my thanks. After reading that paper I, in speaking to a professional brother in Philadelphia, predicted that the paper presented to-day by Dr. Dake would be one for which homœopathists have long been looking—one that we, as a profession, have long been needing. It is an immense subject, but Dr. Dake has taken hold of it in the right way; and while there may be a difference in opinions as regards the availability of the plan he has presented, yet few, if any, will deny the force and value and the correctness of the points he has made. I have never yet grown enthusiastic over any of our provings as they at present stand. In fact I have scarcely been able to rejoice at the extent of our Materia Medica, especially as it has been extended during the past decade, and have come to fear that, perhaps, as it was being drawn out it was being proportionately weakened. As an instance of what I have special reference to, I would cite the recent appearance in one of our best journals of the *provings* of a number of drugs made in each case by a single individual, each proving being the record following the taking of a single dose, and yet not a word stated as to the age, personal character, or reliability of the prover; not a tittle of evidence offered as to whether the symptoms recorded were the actual effects of the drugs taken, or whether they were the effects of an extraordinary capacity for lying, or of a powerful imagination acting upon an excitable nervous temperament. Now I have not the least doubt that every one of these so-called symptoms will be gathered into the next work issued on Materia Medica, as thousands of other symptoms of equally doubtful character have been gathered heretofore, and published without further evidence of their reliability than that presented in this single publication.

Another instance I may mention. Not long ago I, deviating from my usual custom, published the report of a case I had had in one of our journals, the *Hahnemannian Monthly*. I very rarely allow myself to do this, for the reason that I believe the basis

upon which our system must rest is the provings obtained from healthy individuals, and not the symptoms supposed to be produced by drugs or cured by them when administered to the sick. In the record of the case I called attention to a peculiar symptom, and intimated the probability, that the last remedy used had cured the case. I was not, however, satisfied in my own mind that this was the fact, and so expressed myself. In a recent publication, under the editorship of one of our best men, that symptom is introduced as though it were positive that it had been removed by the remedy alluded to. The truth is that two or three remedies were used in the case, and I did not feel sure by any means which one had benefited the patient, or whether each and all had been inoperative and the cure had been produced by nature alone. If I had even suspected that such use would have been made of my report it never would have been made.

I am not going to decry our provings, or the grand results that have enured to us from them, imperfect though they be; for with them we have been enabled to accomplish so very much more than the allopathic school, with its centuries of experiment and investigation, have been able to accomplish, the proof of which will be presented in statistical tables at this meeting, thanks to our indefatigable friend, Dr. E. M. Kellogg, of New York. But if we have been enabled to accomplish this much by means of our provings, with all their faults and blemishes, how much more might we accomplish if our Materia Medica were made up in a more scientific manner, through the aid of re-proving the drugs which compose it by a scientific method, and thus purifying it.

In regard to the suggestion of Dr. Duncan, it strikes me as a valuable one. While it might be impracticable to have a large number of provers collected together at a central point, to constitute a college of provers, the work might be done by a large number residing at their own homes, if they were under the direction and control of competent authorities. And these provers should be taught how to observe and note accurately the symptoms they obtained. Then each prover should be summoned to appear before the competent authorities, and undergo

the most rigid cross-examination as to his or her proving and the symptoms obtained.

There are many points connected with Dr. Dake's paper which will, no doubt, give rise to considerable discussion. In fact it is a paper rich in points worthy of being discussed, and I trust it will be thoroughly considered. I am glad that it has been presented at this time; and if the first steps towards carrying out its object are now taken, this session of the Institute will be marked out in after time as a red-letter day in its history. If we go to work properly now, the college of provers may be in the very near future. I can see one grand benefit to be derived from such an establishment as is contemplated in Dr. Dake's paper, apart from all others. We have recently had in the reports of certain medico-legal testimony on various trials, painful evidence of the want of positive knowledge of the action of certain drugs. Now, if such a college of provers existed, the business of which was to test all drugs, evidence derived from such a source would be positive, and would transcend all that might be obtained from other sources; and the school of medicine that would have the honor of having put into practice such an institution, would derive great credit in the eyes of the world.

DR. S. R. BECKWITH, of Cincinnati: I rise to give notice that it is my intention to offer a resolution pertinent to this subject, when the proper time arrives. It will have special reference to the plan proposed by Dr. Dake, and argued by my friend Dr. Dudley. I intend to propose the formation of a special committee, to consist of members from all parts of the United States, who shall have delegated to them authority to memorialize Congress, at its next session, to pass such laws as in the opinion of the committee may be necessary to fully carry out the plan suggested, and bring the institution into prompt operation. There is no school of medicine extant that does not believe in the value of proving drugs on the healthy. Pereira, who is a standard authority with the old school, lays it down as an axiom, and regards it as the only proper method. So you see we do not stand alone in the matter. We would be acting as pioneers of the work simply—a work which the signs of the times indicate must soon be done. From conversations had with members of Congress,

I have no doubt at all that if a dozen energetic members of this Institute, properly empowered to do so, were to endeavor to have a provers' college established in connection with the Smithsonian Institute, Congress would grant the petition, and appropriate money for its support, as it would be a grand public benefaction. In this way the college could be established almost at once. I shall offer a resolution, covering this ground, at the commencement of the afternoon session.

DR. GEORGE W. BOWEN, of Fort Wayne, Indiana: I confess, Mr. President, that I rather like the plan of Dr. Dake; but it will require a great deal of time and money to accomplish the desired end, and it is probable that we should fall short of the mark. We should ask the advice, and be guided by the experience, of a man like Dr. Hering, who has devoted nearly his whole life to proving and arranging the Materia Medica. A member of the Academy of Sciences some time ago undertook to make a proving of certain articles of diet. He lived during three weeks on bread and wine, and then resumed his ordinary food. In a while afterwards he lived for three weeks on bread and coffee, and then made his report. He stated that while he lived on bread and wine alone, he felt loving, kind, and affectionate; and while he lived on bread and coffee alone, he felt energetic, cold-hearted, and unfeeling. It takes a long time to make a single proving, and it would take a very long time indeed, even with a college of provers, to go thoroughly over the four hundred most important drugs of the Materia Medica. I believe it would take twenty-five years to go through with but one hundred of these, making a very reasonable estimate of time for each. I will give quite as much as any one who possesses double the means I have, towards the establishment of a provers' college or provers' union.

We have a living father of homœopathy since our first head has passed from earth—CONSTANTINE HERING, of Philadelphia (applause), who has done more towards giving us a pure Materia Medica than any other living man. Now I would wish to have Dr. Hering erect an imperishable monument for himself and for us, in the completion of a grand work on Materia Medica. We know that our venerable friend has very many provings in his

possession, which have been ready for the printer for a number of years, some of which have already been put into the hands of the profession through the medium of medical journals, as specimens as it were. He has promised to issue volumes of these provings, if subscriptions sufficient to guarantee him for the cost of publication could be obtained; but the profession were very backward in making such subscriptions, and the volumes were not published. I wish to introduce the following resolutions:

Resolved, That the American Institute of Homœopathy authorize Constantine Hering, M.D., of Philadelphia, to employ suitable assistants, and prepare and publish in full his complete Materia Medica.

Resolved, That the Institute will guarantee to Dr. Hering the cost of such publication.

THE PRESIDENT: I am of the opinion that this resolution is not pertinent to the subject under consideration, viz., Dr. Dake's paper, and must accordingly rule it out of order.

DR. BOWEN: I think this would be a step in the right direction. I am of the opinion that Dr. Hering's provings, if published, would be of great value to the profession, as they have been made with the greatest care, and we know them to be reliable.

DR. S. LILIENTHAL, of New York: How can we know whether the provings Dr. Hering has in his possession are reliable or not? He has gathered them together from all sources, and some may be reliable and some not. Some of us might consider them valuable while others might not.

DR. T. F. SMITH, of New York: I call the gentleman to order. Dr. Hering's provings are not under discussion.

DR. BOWEN then withdrew his resolutions.

DR. I. T. TALBOT, of Boston, suggested that the Materia Medica of Dr. Hering could be taken up for discussion at some future time during the session.

DR. T. P. WILSON, of Cincinnati, said: It is impossible for members to hear what is said while speakers have their backs turned towards the audience. I move that all persons addressing the Institute shall mount to the platform.

THE PRESIDENT said he would rule that members must thus address the Institute to be in order.

The motion was then withdrawn.

DR. S. LILIENTHAL declared himself to be in favor of this plan. Although an old man, he thought himself good for ten years, and would give one hundred dollars per year for this work if necessary. He had a proving which he could not publish because of its magnitude, and Prof. Allen has one which no one cares to publish on account of the cost. Now for the publication of these provings we want money, and that money can only come from the Institute by the subscriptions of its members. Let us not wait fifty years for the establishment of this college of provers. We have already made a small beginning in New York, under the leadership of Prof. Allen. But let us take up some remedy, as suggested by Dr. Duncan, and prove it by provers scattered all over the land. If this course is carried out and persevered in, we will get many valuable provings.

DR. T. L. BROWN, of Binghamton, N. Y., said he had been converted to the opinion held by Dr. Dake. He had already offered to be one of the number who will give a certain amount every year toward the enterprise. He thought he was good for ten years, and in ten years much good can be accomplished.

DR. T. F. ALLEN, of New York, said: As some allusion has been made to New York, I desire to say a word on this subject. I came on to listen to Dr. Dake's paper, as I knew we should have a good suggestion from him. I suppose it will be acknowledged by every one in this Institute that Hahnemann was the father of homœopathy. But Hahnemann had not twenty thousand dollars a year—he had only *enthusiasm*, and that is what we want now. In the last number of *The Practitioner*, an English old-school journal, a writer says that to Hahnemann is due the honor of having introduced physiological provings into the Materia Medica; and he goes on to say that there is no doubt that the law of *similia similibus curantur* is a fundamental law, but he says it is not a universal law. That is the ground he takes. Now, gentlemen, we are ten years behind the times. We are old fogies. There is not a university on the continent of Europe that has not a department for physiological provings of

drugs upon animals and man. They are pushing this matter of proving drugs in the old school in such a way as should put us to the blush. It is not three weeks since I was reading a proving of Saponin, which has opened to us a great field which had been closed for many years.

These drug provings should be connected with the chair of physiology. No man can give a thorough explanation of provings unless he be a thorough physiologist. We have tried to start this matter on a small scale in connection with our hospital in New York. We have been making some experiments with belladonna on animals, cutting the sympathetic nerve; but, in the nature of things, these have been unsatisfactory. One word in regard to giving all provers the same dose repeated at certain specified intervals. Last winter I gave a preparation of Lachesis 30th to forty or fifty students, none of them knowing what medicine it was or the size of the dose; but of these there were but five who got identical symptoms. This shows that the dose should be graduated according to the susceptibility of the individual.

In regard to the establishment of a National College of Provers, I think it is very much needed and greatly to be desired. At the same time I think it cannot be done except in connection with the chairs of physiology in our colleges.

DR. I. T. TALBOT: We have got to a subject that has struck the great sympathetic nerve of our whole science. We have touched the very basis of homœopathy at the beginning of this session. At the time this Institute was first established, there were a few earnest and determined men who took up this work, and the published work of such men as Hering, Williamson, Neidhard, Payne, and others, who constituted the old "Central Bureau," made the first volume of the Transactions of this Institute by far the best volume ever issued. It speaks well for this Institute that we have thus early and earnestly taken up this important subject. It speaks well for its future. The idea of my friend Dr. Dake is a glorious idea, and his plan a grand one, if it can be carried out. And I approve most heartily the view of Dr. Beckwith, that we go to Congress and ask them to establish such an institution. The American Institute of Homœ-

opathy is now entering upon a more glorious existence. Before the close of this session I shall suggest a plan by which this Institute shall be incorporated by the United States Government, and have a right to raise a fund by the contributions of its members and others to carry out its great purposes.

DR. F. R. MCMANUS, of Baltimore, Chairman of the *Board of Censors*, asked the attention of the Institute for a few moments, that he might make an important communication.

On motion, Dr. McManus was allowed to make his statement, as follows:

DR. MCMANUS: With the advice and consent of my colleagues of the Board of Censors, I appear before you, gentlemen, to report the names of such persons as have been recommended to the Institute for membership. The Board desire to be relieved of a part, at least, of the very great responsibility attaching to the admission to membership in this Institute. I propose to read the name and address of every applicant, the college from which he or she graduated, and the year of graduation, and the names of those members who have indorsed the application. If any member present has an objection to any applicant, or to the college from which he graduated, or knows any reason why an applicant should not be admitted to membership, we ask him either to rise in his place at once and state the objection, or come before the Board and make it. The admission of members is a very important matter, and in my opinion we cannot give too much time or attention to it. It is better for us to take in only ten members at a session, who we know are thoroughly proper persons, than to take in hundreds about whom there can be any doubt.

DR. MCMANUS then read the list of applicants for membership, &c., as intimated above.

DR. T. F. ALLEN objected to the reception of an applicant who had no other diploma than that of the Hygienic Institute of New York.

The Institute then adjourned, to meet at 4 o'clock in the afternoon.

AFTERNOON SESSION.

The Institute reassembled at 4 o'clock, the President in the chair.

DR. I. T. TALBOT read the paper prepared by Dr. William E. Payne, of Bath, Me., entitled, *Is the re-proving of the Materia Medica possible under existing circumstances? And if so, can the great object of purifying it be attained in the way proposed by the advocates of re-proving?*

THE PRESIDENT announced that the paper of Dr. Payne was now before the Institute for discussion; requesting members who wished to speak on the subject to endeavor to make themselves heard by the meeting and by the stenographer.

DR. J. P. DAKE, M.D., of Nashville, Tenn., then spoke as follows: Before entering upon the merits of the questions at issue, and now before the Institute, I desire to say a few words by way of personal explanation, and in the line of history.

In the winter of 1852, Dr. James King, late Surgeon-General of Pennsylvania, made an assault upon homœopathy, in the daily papers at Pittsburg, my field of practice, which led me to challenge him to a public, oral discussion of the homœopathic law, and the formation of a Materia Medica by the proving of drugs upon the healthy.

My challenge was accepted upon condition of my assuming the universality of the homœopathic law and the reliability of the "homœopathic provings."

Knowing too well the character of the provings published here and there in the literature of homœopathy, I was not willing to affirm their reliability, but stood ready to maintain the great principles underlying all experimentation required by the homœopathic law.

After considerable correspondence the discussion was abandoned, simply because I would not maintain, before an intelligent audience and in the face of an able antagonist, the *perfectness* of the homœopathic provings.

In the spring of 1855, at a meeting of the American Provers' Union, in Philadelphia, I proposed a college of provers, an in-

stitution substantially like that set forth to-day, in my paper from the Bureau of Materia Medica.

Dr. Hering made some remarks in reply, opposing my plan, and saying, if I would write out my views he would respond.

During the two winters following, in the Chair of Materia Medica, at the college in Philadelphia, the labor of examining critically and of comparing the provings of the various drugs I was to present, was forced upon me.

And in making such examinations and comparisons, I found it one of the hardest undertakings of my life to gather and submit to the young men before me reliable and useful information regarding the various drugs constituting the homœopathic Materia Medica. If I had before found those provings defective, far short of the requirements of the homœopathic law, I then had an almost overwhelming sense of their insufficiency.

At the meeting of the Institute in Chicago, 1857, I read a paper from the Bureau of Materia Medica, setting forth the causes mainly operating to complicate drug experimentation, and to render the results unreliable.

Two years ago, being unable to attend the meeting of the Institute at Philadelphia, I wrote to the Chairman of the Bureau of Materia Medica, requesting him to lay before its members, when assembled, a proposal for the consideration, during the ensuing year, of a plan for the more perfect proving of drugs, such as I have now had the pleasure of submitting.

Through a misapprehension of my request, my letter addressed to the bureau alone was submitted to the Institute, and after some discussion referred to the publishing committee.

Determined that the subject should receive the attention of the bureau, and come up in regular order for discussion, I last year succeeded in getting the Institute, by unanimous vote, to order the Bureau of Materia Medica to consider and submit a plan for the more thorough and proper proving of drugs and notation of symptoms, at this meeting.

With these necessary words of introduction and history, I proceed to the merits of the question.

REQUIREMENTS OF THE LAW SIMILIA.

The homœopathic law, as a guide in practice, commands us to select in every case of disease requiring medicinal aid, a remedy known to produce in the healthy organism, symptoms like those exhibited in our patient.

Consider all the symptoms in a single case of acute disease, and then all the symptoms in all the cases of acute disease that have come under your observation, and then add all the symptoms in all the cases of chronic disease you have ever met with, and you may have some conception of the display of drug symptoms necessary to furnish a simile, a likeness, for each and every case calling for medicinal aid.

By whatever signs disease has manifested itself to us, in abnormal sensations or abnormal appearances, by the same must every drug reveal itself to our understandings.

As we study disease, so must we study drug influence, not alone in its subjective, nor yet alone in its objective symptoms, but in all, in every direction and to all extents.

If in disease we observe the state of the pulse, the appearance of the tongue, and the expression of the face, we must do likewise when we examine an organism that is under drug influence.

If we apply the stethoscope and thermometer and speculum, and employ the microscope, ophthalmoscope, and chemical reagents in the one case, we cannot, as intelligent and conscientious provers, neglect them in the other.

Whatever modes and whatever means we require in arriving at a proper knowledge of disease, are required just as much in arriving at a knowledge of drug influence.

This truth is more than a mere proposition, it is an axiom, not to be demonstrated but to be accepted and observed practically everywhere and at all times.

HISTORY OF DRUG PROVINGS.

In order to show to what extent the requirements of the homœopathic law have been observed in the testing or proving of drugs, I must briefly trace the history of our Materia Medica.

When Hahnemann was fully satisfied that the law "similia" was general in its scope and application, he found himself with a knowledge of drug effects, in the healthy organism, entirely insufficient to meet the demands of practice.

The sudorific, diuretic, antispasmodic, and kindred properties of drugs, as displayed in Cullen's Materia Medica, which he had recently translated into his native tongue, were of little more use to him than were the cabalistic signs of the old Jewish astronomers to Isaac Newton, when making his calculations under the great law of gravitation.

Searching the records of toxicology for the positive effects of the various medicines in use, he gathered information enough to enable him to verify his therapeutic law, and to lead him on in the development of a new and triumphant system of medical practice.

And not satisfied with the rough outlines of drug action furnished by toxicology and the dim pointings of the ordinary Materia Medica, he determined to institute provings upon himself and others in health.

With but a handful of disciples scattered here and there, and only a very few of them willing to aid in his work of experimentation, he went slowly forward.

He took sensible doses and gave them to members of his family, and noted the results.

He afterwards induced some of his medical colleagues to make provings. He lessened his doses, and proved some drugs in the thirtieth attenuation.

In the gathering of drug symptoms he allowed such to be included as were known to disappear in an invalid while taking the drug as a remedy, and also such as were sensibly aggravated by its supposed influence.

Thus he had gathered from various experiments and various sources; from provings made here and there, and from the records of toxicology; from the action of large doses in some provers and small in others; and from both the sick and the well; till in 1805 he issued a volume very properly entitled "Fragmentary Observations relative to the Positive Powers of Medicines upon the Human Body."

In after years came his "Materia Medica Pura" and his "Chronic Diseases," made up from the same kind of materials, and they have been followed since by many additions not essentially different.

Who that has closely examined those works and traced the history of their formation, is willing to say that the requirements of the homœopathic law are satisfied therein?

Behold a conglomeration of symptoms from the "thirtieth and the two hundredth potency" in some provers, and from doses of the crude substance in others; from patients made worse and patients made better under the same drug influence; from believers in homœopathy and from its bitter enemies; from the profession and from the laity; from works on toxicology and from the misty realms of the human imagination.

Let me not be misunderstood. I speak not thus through any lack of regard for the immortal Hahnemann, nor his honest, earnest followers who have labored to give us a Materia Medica.

No; all honor to them, and thanks for the good they have done.

They lacked no love for truth, nor devotion to the cause of science and humanity.

They lacked not faith, nor zeal, nor industry; but they lacked the *opportunities* and *means* vouchsafed abundantly in the rolling years to our day and generation.

Hahnemann was poor and persecuted, with few to help him, and many to hinder.

His provers were scattered beyond the reach of his eye, his touch, his voice, and his chemical tests. As their records came to him, so he was compelled to take them, the reliable and the unreliable, the good, the bad, and the indifferent, all without discrimination.

And his immediate followers, beset with similar difficulties, must be covered largely with the same mantle of charity.

But am I alone in seeing and feeling the sad defects in the provings, the symptoms, composing our present Materia Medica? Far from it.

I might stand here two hours, simply reciting the opinions

expressed by leading men in the profession, taking the same view that I have regarding the matter.

But I defer such proofs till some one confronts me with the claim that our provings have been properly made, and that the results are satisfactory.

A COLLEGE OF PROVERS.

I have said that Hahnemann and his immediate followers possessed not the opportunities and means, now available, for the thorough and proper proving of drugs.

1. Look at the long list, running up toward a thousand, of students at our colleges each winter, in the pursuit of homœopathy, not an insignificant proportion of whom are females.

What is to hinder a score of them from spending a summer as provers, collected at one place, under competent instructors, with all their expenses paid, and the sure prospect of having their names and discoveries indelibly written upon the brightest page of all medical history?

When a proper college of drug provers shall arise to perfect Materia Medica, there will be no lack of male and female students asking to participate in its glorious work.

2. And why may not such a college rise in this land before we meet to celebrate the hundredth birthday of the Republic?

The buildings and apparatus once provided, at an expense say of twenty-five thousand dollars, the institution could be maintained upon an annual income of twenty-five thousand dollars.

If it is resolved, in this meeting, by a proper vote, that such a college is necessary and shall be founded and maintained, no human power can prevent its rise at a day not far in the future.

Homœopathy has enriched its practitioners all along the old seaboard, and back into the broad central valleys, and far away to the Pacific, and its saving power has enshrined it deep in the affections of the wealthiest and most liberal classes of society; and can it be possible that the grateful offerings in return already made in New York, in Chicago, in Boston, and in Cincinnati, will not continue and increase, till there shall be a college to *originate* among the many noble ones now reared to *disseminate* medical knowledge among men?

3. Having indicated sufficiently in my paper from the Bureau of Materia Medica, the form and modus operandi of such an institution, I need not dwell upon them here, but suffice it to say they would be such as to render the provings sent forth at once certain and intelligible—the wheat sifted from the tares and the chaff and properly garnered for use.

THE OLD WAYS OF IMPROVING THE MATERIA MEDICA.

But, in the absence of a college of provers, and as against the necessity for one, let us see what ways and means have been in vogue and what are now urged, for the improvement of the Materia Medica.

1. Physicians have acted as provers, taking certain doses of a drug and noting the effects.

Look at such provers roused midway in their needed slumbers, and compelled to go forth in storm or cold, or see them in the sick-room inhaling air loaded with the miasma of measles, scarlatina, or small-pox, one breath of which will infect the strongest man, if he has not already been their subject directly or by prophylaxis; or see them passing a whole day without tasting food, or a whole night without sleep; or see them weighed down with care and anxiety, for lives trembling in the balance yet committed to their skill; or again in their office, breathing the invisible atoms that escape from the bottles they uncork or medicate afresh, and then say, if you can, that *they* are proper persons to prove the 30th, 10th, 3d, or any other preparation of a drug.

If they experience a sensation of "chilliness," or have "dry or fluent coryza," or "soreness of throat," or "headache," or "hunger," or "sleepiness," or "mental languor," or "depression of spirits," or "irritability of temper," how are they to tell whether to attribute them altogether, partly, or not at all, to the drug under trial?

Think of a physician in the midst of such disturbing causes, his nose well charged with snuff, or his head lost to view in the circling smoke of an old meerschaum, proving in his own person, for you and for me and for generations yet unborn, the 30th attenuation of drugs!

2. Laymen, scattered here and there, with no knowledge of anatomy, and very little of medical phraseology, ignorant alike of the terms requisite in describing their abnormal sensations, and of the tests needed in examining their morbid products while under drug influence, have acted as provers.

3. And all the symptoms reported by physicians and laymen, have been accepted and published, from year to year, under the belief, "*that the tares must be gathered with the wheat and nothing rejected till it is proved to be false.*"

Almost every issue of every journal of homœopathy is more or less filled with such commingled "wheat and tares," and in this learned body we have been asked to sit and listen by the hour to the reading of symptoms, eight-tenths of which we have felt sure were nothing but "tares" or chaff.

Were a complete Materia Medica to be published, "one that embraces all the symptoms as they have been recorded by the provers," we would have at least half a dozen volumes, each one as large as Webster's dictionary unabridged. And as provings have been carried on lately, there would be an annual supplement of five hundred pages. And a complete repertory would make up three or four additional volumes of the same size.

Much as a complete Materia Medica is desired, I am not surprised that no publisher stands ready to assume the risks of printing it, nor that the profession believing the great bulk of it to be "tares" and chaff, and not "wheat," should hesitate to furnish means for its publication.

As to the great and vexatious presence of spurious symptoms in all the provings, there is but one mind in the profession. All have been made painfully sensible of their presence, and all desire their removal.

REMOVAL OF SPURIOUS SYMPTOMS.

Hitherto the only plan for their removal has been by the tests of clinical experience. Taking all the symptoms as reliable, remedies have been chosen upon them and administered to the sick. If a certain symptom disappeared from the patient, like one recorded in the provings of the drug administered, it was

marked as "verified," and so raised one degree in the scale of value.

But if such symptom did not disappear in the patient, it was not marked nor disturbed, but left in the Materia Medica, with no disfigured face, to fool the practitioner again and again, and perhaps also to cheat many a confiding patient out of his very life.

The husbandman who sifts not his grain as it is threshed, but in the springtime casts it upon his field, waiting till the harvest shall distinguish the "tares from the wheat," need not be surprised that his returns of wheat are small and his farm overgrown with pestilent tares.

To further show the futility of the clinical mode of separating the genuine from the spurious in drug symptoms, let us take an example.

In a given case, A. finds a symptom well marked in his patient, and, upon exhibiting the drug under which the same had occurred, there is a happy relief. He at once reports that symptom as *verified*, and therefore *genuine*.

In a similar case, B. prescribes the same drug, and there is no relief, and he reports the symptom as *spurious*.

After a dozen years, A., having another such case, prescribes the same remedy, and there is no relief. He now believes B. to have been right in pronouncing the symptom spurious; and yet in B.'s case, and in his own second case, the failure may have come from the use of a larger dose, or a smaller dose, or from some error of diet, or exposure to cold, or other unknown cause.

After another dozen years, C. reports the same symptom, verified in two instances.

Now, in all candor, and in view of the urgent necessity of distinguishing between the genuine and the spurious, I ask, how long will it take to accomplish the work in the manner just represented, and advocated by some able men in our ranks?

If we were to have no more provings made, but should have our Journals and the Transactions of this body, from year to year, filled with clinical reports, marking one symptom as genuine and another as spurious, it would take a thousand years to dispose of ten per cent. of the spurious.

One report would contradict another continually.

The diligent medical annotator, with head down and searching eye, would one year write down a symptom as genuine, and the next wipe it out as spurious, to be replaced as genuine, and perhaps again wiped out.

Until clinical experience can be stripped of its thousand uncertainties,—till it can be altogether different from what it has yet ever been, our Materia Medica cannot be purified and brought up to the requirements of the homœopathic law by its tests, its reports, its verifications, till the end of time.

OBJECTIONS TO A COLLEGE OF PROVERS.

And now, in conclusion, I must notice the objections urged against a college of provers.

As I have already stated, when I first proposed such an institution, at the meeting of the American Provers' Union, in Philadelphia, Dr. Hering promised if I would write out and publish my views on the subject he would state his objections in reply to me.

Sixteen years ago my views appeared at length in the Transactions of this body, and to this day he has never, to my knowledge, published a sentence nor a word of reply.

If I was wrong, if my plan was impracticable, I was sincerely anxious for him to set me right.

But in place of presenting any facts, any logic, any rational views, in opposition to my facts and arguments and plans, he did, in Raue's *Annual Record* for 1872, page 46, make a garbled quotation from an article of mine on the subject in the *Medical Investigator*, with sundry points of exclamation and interrogation thrown in, as it seems to me, for the purpose of thus casting a *slur* upon that which he could not successfully controvert.

Dr. Wesselhœft, in the May issue of the *New England Medical Gazette*, presents the first arguments I have ever had the privilege of reading against my plans for improving the Materia Medica.

They are well and candidly stated.

He says, "And now it is proposed to re-establish by actual experimental proofs, all that has been known and published with regard to Materia Medica, since the publication of Hahnemann's works! Ideally, this would be right, were it practicable: but really impossible."

The Doctor is slightly in error as to what is immediately proposed. It is no part of my plan to re-prove all the articles now foisted into the Materia Medica, much less to "re-establish all that has been known and published with regard to Materia Medica."

Scores of articles I would at once dismiss as filthy and useless things.

Selecting drugs of undoubted power, pointed out both by clinical and physiological effects as of some practical value, I would have them proved, not with the expectation to re-establish anything, but to obtain their uniform, characteristic, and true effects in the human organism, without the spurious symptoms, now and hitherto, rendering them comparatively worthless.

Such an undertaking is not only "ideally right," and "really possible," but plainly "practicable." If not, then alas for the healthy vital test! It is a delusion, and its execution under any circumstances a rank impossibility.

Again the Doctor says: "By creating a great stir and commotion, by loud proclamation, by exciting the ambition of those eager to excel in public, we might if we chose furnish a large quantity of *factory* work, but that is not what is needed."

I suppose by "the great stir and commotion," is meant the discussion of this subject, as we are doing here to-day, and propose to go on doing; and by the "factory work" is meant provings made in a college of provers.

Well, in every department of life, in all the arts and sciences, there has come occasionally a great "stir and commotion," and many good old folks have been terribly disturbed thereby.

From the days of Demetrius, the goldsmith of Judea, down, many have lamented a movement incidentally calculated to disarrange some pet personal or party schemes. But, nevertheless, a great "stir and commotion" continually comes.

As to the figurative "factory work," I am curious to know if

the Doctor really likes the "linsey-woolsey" better than the beautiful smooth "factory work" of his own State.

Does he mean to say that the old-fashioned spinning-wheel that our grandmothers used to run when girls, and the little old loom, did better work, made better cloth, than the stately factories and perfect machinery of New England?

Would he advocate a return to the "homespun?" I imagine not.

Had the Doctor been in control of Cambridge University, England, when it was proposed to establish a grand observatory, with its telescopes, its transit circles, its equatorium, and numerous other instruments for observing and studying the great bodies and movements in the heavens, he would doubtless have cried out: "Away with your *factory* work; let me have only what the shepherds saw, as they watched their flocks by night in Palestine."

And when Smithson gave his fortune to found an institution at Washington, for the *increase* as well as the diffusion of knowledge among men, the Doctor would have said, "Foolish Smithson, thus to *excite the ambition of those eager to excel in public.* Why get up such a *factory* with so many and expensive instruments? Why not let the 'modest and retiring' people, who have been experimenting and searching about in their own way, go on with this work? They got along very nicely without your fine apparatus, and, besides, Professor Henry may make discoveries that will render worthless some of our large books on astronomy or natural philosophy; and so we may lose for practical purposes all our knowledge—the work of more than thirty-five years."

What must the Doctor think of his neighbor, Professor Agassiz, who proposes to have a great scientific summer institute —a normal school—on the sea-coast near Boston, where teachers and scientific persons may congregate and experiment and study during the usual school vacation?

And what does he think of Mr. Anderson, of New York, who promptly gave the Professor a whole island and fifty thousand dollars for the establishment of his school?

Does he think the chances for correct information on scientific

subjects, better at the homes of all the teachers, as scattered from Maine to Texas, in cities, and villages, and country places, each taking his own way with his limited means, than when assembled on Penikese Island, with Agassiz to lead and direct, and with all the means of demonstration that he can furnish? Perhaps he thinks the Professor anxious "to excite the ambition of those eager to excel in public?"

But unto what, that is familiar in the useful arts and daily walks of life, shall I liken our Materia Medica?

Unto a locomotive upon our railways, not built in a large factory, under the direction of the highest mechanical skill and with the most improved machinery; but in shops, all along the line, a piece here and another there, under the hammer of an engineer, a conductor, a fireman, and a brakeman?

Or, unto a timepiece, a watch, not made at Waltham or at Elgin, under the direction of a master-workman, with machinery that shapes every part without the shadow of a variation or discrepancy; but in the scattered cabins of the Swiss, a part by one and a part by another?

Or, unto a chest of coin, not turned out from a mint, under governmental supervision, and the assayership of the most skilful chemists, by machinery the most perfect, and in dies the most exact; but made here and there, in every foundry or machine-shop, with no higher chemical skill than is required in casting a plow-point or a stove-lid, and no means of determining values or affixing the indubitable signs of genuineness?

But we are told that every engineer, conductor, fireman, and brakeman ought to make some part of a locomotive, in order to know how to run one properly—that a dozen Swiss mechanics, men, women, and children, should each, in a separate cabin, make a piece of the same watch, in order to prevent collusion and cheating in the general job; and that it is more free and republican to let everybody make coin for circulation that may wish to do so, leaving the discrimination of the genuine from the spurious, and the fixing of the value of every piece, to the best judgment of the people, or to brokers and money-changers all over the country.

A happy state of things, indeed! Drug experimentation is

not for the mental discipline, nor other personal benefits of the provers, but for the ascertainment of the characteristic and constant effects of drugs in the human organism, in the formation of a Materia Medica, alike valuable to every physician in the world.

Certainty and exactitude in the results must be had, or the demands of the homœopathic law can never be satisfied.

Shall we have them or shall we not? Shall we go on in the old way, or shall we rather imitate the grand forward march taking place in every other department of science?

> "When people once are in the wrong,
> Each line they add is much too long;
> Who fastest walks, but walks astray,
> Is only farthest from his way."

Dr. G. W. Swazey, of Springfield, Mass., said this was a most important subject and one that should be thoroughly discussed. He was of the opinion, however, that there was a tendency in the remarks made to undervalue the provings we now have. He hoped the whole matter would go into the hands of a committee for careful reflection. In his opinion the great trouble with our provings lies in their wordiness, their prolixity. We are all aware that there are better methods of presenting subjects than there once was; and it is possible that the Materia Medica may be presented in a better shape than heretofore, so far as notation is concerned. Some time ago the lamented Dr. Flagg was appointed by the Institute to present typical illustrations of the effects of drugs upon the parts and tissues. Dr. Flagg made an outline sketch of the body and divided it into regions. From this figure he projected lines, which indicated the direction of the action of remedies. Now it would seem that if some such plan were to be properly elaborated, it might be made a valuable means for studying the Materia Medica. He thought the Institute should move very cautiously in this matter, and that the whole subject should go to a committee and be thoroughly looked into and reported on before a dollar of money was subscribed or any other step taken.

Dr. S. R. Beckwith, of Cincinnati: You will remember, Mr.

President, that at the morning session I expressed my determination to offer a resolution regarding the subject. That preamble and resolution, which I now offer, is as follows:

WHEREAS, In the opinion of the American Institute of Homœopathy a more thorough and complete proving of the drugs in the use of the medical profession is necessary to be made, to the end that the Materia Medica may become purified, so far as possible, both from errors and superfluities, and become more available for the treatment of disease; therefore

Resolved, That a special committee be appointed, consisting of J. P. Dake, T. S. Verdi, P. Dudley, T. C. Duncan and F. R McManus, to memorialize Congress, at its next session, in relation to the appropriation of such sum or sums as in its opinion may be necessary to establish and maintain a prover's college, upon such a plan and with such a faculty as may be deemed advisable.

DR. I. T. TALBOT moved to substitute for the preamble and resolution of Dr. Beckwith, that the whole matter of a prover's college be referred to a special committee, to be appointed by the Chair, to report thereon during the present session.

Agreed to.

THE PRESIDENT appointed Drs. I. T. Talbot, S. R. Beckwith, T. F. Allen, T. L. Brown and Lyman Clary said committee.

REPORT OF THE BOARD OF CENSORS.

DR. F. R. MCMANUS reported the names of a number of applicants for membership. He stated that the Board had carefully investigated these applications, in so far as it was possible for them to do so, and desired to report the applicants as eligible to membership in the Institute.

DR. J. P. DAKE moved that the physicians whose names had been presented by the Board of Censors be declared members of the Institute.

Agreed to.

DR. MCMANUS then said there were two or three applications for membership about which the Censors had not been able to come to a decision, and therefore came before the Institute for advice. One of these applicants was a lady from Philadelphia whose application was indorsed by Drs. C. Hering, A. Lippe, and H. N. Guernsey; but her application states that she is a gradu-

ate of the "Philadelphia University of Medicine and Surgery," and this institution seems to have been proscribed by all medical societies, allopathic and homœopathic, and regarded as an institution not in good standing. Indeed, the Legislature of Pennsylvania relieved it of its charter, if he was not mistaken. This lady says for herself that she has never been so situated as to be able to go from her home in Philadelphia to attend lectures at a homœopathic college where women were admitted to studentship; that the Homœopathic Medical College in Philadelphia does not admit women to its lectures; and that she preferred to graduate at the college she did, which was eclectic, rather than attend the lectures at the Women's Medical College of Philadelphia, which is an intensely allopathic institution.

DR. S. R. BECKWITH: Have we not had rulings on the status of this college at our meetings in Philadelphia and Washington?

DR. I. T. TALBOT: I move that this application be referred back to the Board of Censors without the action of the Institute.

This motion was agreed to.

DR. MCMANUS then read the names of certain applicants for membership, whose certificates stated that they were graduates of the Detroit Homœopathic Medical College. He said the Board of Censors had had a great deal of trouble about these applications, as much had been urged in objection to the institution mentioned. He hoped that if any members of the Institute knew anything of this college they would stand up and manfully say what it was.

DR. T. F. ALLEN asked whether the college in question was incorporated.

DR. T. F. POMEROY, of Detroit, Mich.: It certainly is an incorporated institution.

DR. FRANCIS WOODRUFF, of Ann Arbor, Mich.: It is a chartered college, just the same as any other. I was very much pleased with the remarks of our President when he advocated a higher standard and higher attainments for our homœopathic colleges. If we believe as he does, we should not elect our members from the graduates of an institution which graduates students after one week of attendance on lectures; an institution that has a man at its head who sends out circulars describing his

wonderful cures. I do not regard this institution as a regular college. If you take in members from this institution, you can get rid of me without any feeling in the matter. I neither preach nor practice the kind of homœopathy taught there.

DR. D. E. HOLT, of Lowell, Mass.: If a college is chartered by the Legislature of a State, we have no right to go behind that act of incorporation and say we will not recognize it as a proper institution. The authority of the Legislature comes from the people. It is law for us, and above the rules of our associations and societies. It is unfortunate if the Legislature of Michigan has chartered a college in the interest of one of the many homœopathic cliques of that State, which is being conducted wrongfully, according to the views of the men who belong to other cliques or factions. Still I do not think it belongs to us to say that we will not receive the graduates of that institution to membership with us, simply because they are its graduates, and without any other reason than because it does not come up to the ideas entertained by some gentlemen as to what a medical college should be. Now my ideas of a college may differ from yours, Mr. President. I may think such an institution should resemble Cambridge in Old England or Cambridge in New England, while you may have a very different idea about it. I honor the authority of a State; it may be because I was once a member of the Legislature of Massachusetts and helped to make laws. If this institution has done wrong, there is surely a power in the State of Michigan to revoke its charter, as has been done by offending colleges in Pennsylvania; but while it is an incorporated institution, we have no right to refuse to receive its graduates simply as such.

DR. E. C. BECKWITH, Zanesville, Ohio: It seems to me, Mr. President, that the Institute is taking an improper course in the consideration of this matter, and is placing itself in the position of severely reflecting on the authorities of the State of Michigan. I am of the opinion that if these gentlemen who have come here asking to be admitted to membership are refused admission because of the doubt which we may have of the legality of the authority which conferred on them the degree of Doctor of Medicine, they can come into this society by a mandamus. If

there be anything wrong with this college, let us put the wrong doing to the charge of the proper persons, the faculty of the college, and let us not reflect on the authority of a State.

DR. C. S. ORMES, of Jamestown, N. Y.: I know, Mr. President, that the Detroit Homœopathic Medical College has a lawful charter, and a capable faculty with one exception; they have been very prosperous thus far, especially when we consider the opposition they have met, and they are trying to do a good work. The professors, with the one exception mentioned, will compare favorably in learning and ability with those of any other homœopathic college in the land.

DR. E. C. BECKWITH moved that the applications for membership of the graduates of the Detroit Homœopathic Medical College be held in abeyance until the status of the college be fully ascertained by the Institute.

Agreed to.

THE PRESIDENT: Dr. Wilson now has the floor on the subject of Materia Medica topically illustrated.

DR. G. H. WILSON, of West Meriden, Conn.: No apology is due for obeying impromptu the call of a medical father (Dr. Swazey), but the benefit of one may be needed, if, by want of preparation, I fail to be understood. Yet I venture to say a word in favor of the simplification of our Materia Medica, and drop a hint that perchance may flow on the current of thought, now raising from hopeless uncertainty this hobby of our science, daily ridden by us all, but most discouragingly by the younger brethren.

We have many facts but too many words. Time is too valuable for circumlocution. Men will not wait to read careful descriptions of ancient art and beauty, but hastily turning the leaves of modern photography, take in ideas impressible from verbal efforts.

All records of varying events, as of temperature, rainfall, and pulse, are pictorially displayed, both in rate and degree. In short, everything is rapidly drifting into the realm of mechanics, and pathogenetics may hopefully tread where chemical analysis has led.

We recognize diseases at a glance by their image; may not

remedies be read similarly by their picture? or by some visual representation of their characteristics, impressing directly and instantly the perception, as does the view of a familiar object or face. The plan required should express to the eye in one view, the organ and tissue affected, the locality and quality of the symptoms with its concomitants, and include its date, hour, duration, repetition, and verification, without ambiguity. It should be simple enough for the use of students and laymen, unable to translate an ill into medical language yet can point a pencil to its seat.

Suppose we furnish our student with a few cards on which are printed a regional map of the body, both front and rear, on the right margin a list of all organs, and below all tissues of the body; across the bottom every kind of pain, and over the top, the hours of day and night, the last on a dark ground.

Now give him a drug, with orders to draw a line on the card from the seat of the first symptom to the printed name of the organ, tissue, pain, hour, &c., also to mark a repetition by a check across the line; and a verification by a letter. Example: Remedy, Bell.—Shooting pain over right eye; connect the words forehead, nervous, shooting, &c.

In practice, as you run over a handful or volume of these cards, the eye at once catches any line leading from the affected part, and decides at the same time the quality of the pain and tissue involved.

By noting in an album all new facts and verifications, it would finally contain and would give on reference the sum total of knowledge of a remedy.

REPORT OF THE AUDITORS.

The Auditors reported that they had examined the accounts and vouchers of the Treasurer and had found them correct. On motion, the report was accepted and the Auditors were discharged.

It was then moved and seconded that the Treasurer's Report be adopted, which was agreed to.

Dr. T. F. Allen, of New York, then presented a synopsis of the *Provings of Fagopyrum esculentum and of Calcium sulphite.*

On motion, these papers were accepted and referred to the Committee of Publication.

DR. I. T. TALBOT read a synopsis of the paper by Dr. Conrad Wesselhœft, entitled *Sulphur in Acute Diseases*, which was likewise accepted and appropriately referred.

The balance of the papers of the Bureau of Materia Medica, Pharmacy, and Provings, were then read by title and referred to the Committee of Publication.

On motion, the bureau was declared closed.

DR. T. P. WILSON, of Cincinnati, O., moved that, during the remainder of the session, meetings be held from 9.30 A.M. to 12.30 P.M., from 2.30 P.M. to 6. P.M., and from 8 P.M. to 10 P.M.

Agreed to.

The Institute then adjourned, to meet in the evening at 8 o'clock.

EVENING SESSION.

The Institute reassembled at 8 o'clock, the President in the chair.

BUREAU OF CLINICAL MEDICINE.

DR. J. C. BURGHER, of Pittsburg, in the absence of the Chairman of the Bureau of Clinical Medicine, announced that the subject selected by the bureau for special report was *Phthisis Pulmonalis*. He stated that the following papers were in the possession of the bureau:

Practical Remarks on Pulmonary Consumption; by WM. H. HOLCOMBE, M.D., of New Orleans, La. (Section III, Art. XLI.)

Hints on the Management of Phthisis Pulmonalis; by GEORGE A. HALL, M.D., of Chicago, Ill. (Section III, Art. XLII.)

Ferrum *vs.* Phthisis; by E. C. BECKWITH, M.D., of Zanesville, O. (Section III, Art. XLIII.)

Regular and Systematic Respiration of Pure Air as a Prophylaxis of Phthisis; by J. C. BURGHER, M.D., of Pittsburg, Pa. (Section III, Art. XLIV.)

An Examination of the Apparent Causes and Results of Treatment in One Hundred Cases of Phthisis; by H. B. CLARKE, M.D., of New Bedford, Mass. (Section III, Art. XLV.)

Statistics of the Comparative Mortality in the cities of New

York, Boston, and Philadelphia, under Homœopathic and Allopathic Treatment; by E. M. Kellogg, M.D., of New York. (Section III, Art. XLVI.)

Alcohol in Disease; by DANIEL HOLT, M.D., of Lowell, Mass. (Section III, Art. XLVII.)

Three Cases cured by Natrum muriaticum; by WILLIAM GALLUPE, M.D., of Bangor, Me. (Section III, Art. XLVIII.)

Small-pox and its Prophylactics; by JONATHAN PETTET, M.D., of Cleveland, O. (Section III, Art. XLIX.)

Anal and Rectal Fissure; by WILLIAM EGGERT, M.D., of Indianapolis, Ind. (Section III, Art. L.)

"PHTHISIS PULMONALIS."

THE SECRETARY then read Dr. H. B. Clarke's paper, entitled *An Examination of the Apparent Causes and Results of Treatment in One Hundred Cases of Phthisis.*

DR. SAMUEL LILIENTHAL, of New York, requested the acting chairman of the bureau, Dr. Burgher, to give a definition of the term phthisis.

DR. BURGHER: Phthisis means a wasting disease, and the term includes several varieties of wasting disease. I suppose the author of this paper used the term in its general acceptation, viz., a wasting disease of the lungs.

DR. LILIENTHAL: I regard phthisis as a disorder of assimilation, which ultimately affects the lungs, but does not begin with them, and I look upon it as curable in its earlier stages.

DR. BURGHER declined to be responsible for a definition of the term.

M. MAYER MARIX, M.D., of Denver, Col.: Mr. President, I do not wish to be guilty of an act of discourtesy, yet I desire, as a practitioner of homœopathy and as a member of this Institute, to enter my most solemn protest against the treatment of phthisis, or any other disease, by such compound remedies as the acetate of morphia and ipecac.; and I also desire to enter my protest against the topical use of croton oil in the treatment of phthisis.

DR. J. P. DAKE: The author of this paper, read by the Secretary, is not present, and cannot reply to the gentleman who

has just spoken. He refers to these means as palliative merely, and does not regard them as curative.

S. M. CATE, M.D., Salem, Mass.: I do not wish to say anything in defence of Dr. Clarke's paper. But it is a well-known fact that there are some men who imagine there is but a single road to a given place—the road they travel, and that there is but one way to do anything—the way in which they do it. I suppose every member of this Institute has treated cases of consumption, cancer, and other diseases, where a cure was impossible, and yet there was great opportunity to allay pain and mitigate suffering by the use of medicines simply as palliatives, whether homœopathic or extra homœopathic. Dr. Clarke's prescriptions of palliatives appear to have been for such purposes, and I would ask whether there was anything wrong in his resorting to such measures for the alleviation of human suffering?

ROLLIN R. GREGG, M.D., Buffalo, N. Y.: The profession has been *palliating* this disease during the past century, and yet one-fourth of all who die are its victims. It seems to me that it is time for us as physicians to try to do something more than palliate.

On motion, Dr. Clarke's paper was accepted and referred to the Committee of Publication.

THE SECRETARY then read the paper prepared by Dr. W. H. Holcombe, of New Orleans, La., entitled *Practical Remarks on Pulmonary Consumption.*

T. L. BROWN, M.D., Binghamton, N. Y.: Mr. President, I am about to relate a case which came so closely under my observation that I am enabled to give all the facts. My wife's father, with whom I have been acquainted for twenty-seven years, is now seventy-seven years old. When he was young he was a man of good habits so far as the use of stimulants were concerned, and he has always led a somewhat stationary life, as a clerk, most of the time within doors; and yet, his work being light, he was enabled to spend a considerable portion of his time in the open air. He said he had consumption, and he had been told so by several physicians before I became acquainted with him. He had several bad habits, one of which was especially marked, and that was the habit of drinking large quantities of

tea and coffee. Before I became acquainted with him he had had three or four hemorrhages. The disease commenced as catarrh in the head, with discharge of filthy matter from the nostrils, accompanied with coughing. He had a regular morning cough, and was at times so weak that he could hardly go about the house. This condition of things existed twenty-seven years ago, and yet he persisted in drinking excessive quantities of tea and coffee. During twelve years of this time I gave him homœopathic remedies, but could not prevail upon him to give up liquor, which he took in moderate quantities, or his favorites, tea and coffee. Ten years ago he came to live in my family, through the force of circumstances. My wife and I have taken from our table all stimulants. When he first sat down to breakfast with us I said to him, "You must now follow my advice." He said, "I don't think I can live unless I can have my tea and coffee." To this I replied: "You know I have your best interest at heart. Now if I find, after a fair trial, that you really require tea and coffee, you shall have them; but if, on the contrary, we find that you do not need them, but are better without them, we will go on as we have begun. I have been eight years in your family. Your daughter is now hearty, and has good health, although she had symptoms of consumption when we were married. On the strength of this I ask you to follow my advice, and see what will come of it." He agreed to do so. In place of his tea and coffee we gave him the wheat-bran coffee as a beverage; but what I attribute the cure which followed to is this: he rode with me daily, except Sundays, for from three to five hours a day, in all kinds of weather, and at all seasons; being warmly clad in cold weather, and protected from storms. He lived upon bread, and fresh, dried, or canned fruit (no "preserves"), and plenty of good milk, eggs, oysters, and vegetables cooked without spices. He ate no meat for years, but during the past two years has been taking some meat. The result of this course of treatment has been that he has no more hemorrhages, and is now a hale and healthy old man.

C. H. Von Tagen, M.D., Cleveland, O.: I wish to make a few remarks in regard of a case that came under my observation some years ago in Philadelphia; a case illustrative of the spon-

taneous cure which may take place in cases of far-advanced phthisis.

I cannot remember the name of the person at this time, but he was a distinguished naval officer. Early in life pulmonary symptoms developed themselves (I believe they were hereditary), and the disease made sad havoc with his left lung. There was a large abscess formed in the upper portion of this lung, and futile attempts had been made by various physicians at different times to relieve him. On advice, after an attack, he concluded to abandon medicine entirely, and to take a trip across the ocean on a sailing vessel. Returning, he entered the naval service, having resolved to follow the sea, which he did for twenty-seven years, and rose to the rank of captain. During the siege of Charleston, I believe, he commanded one of the blockading vessels. Some suspicion falling on him he was relieved from his command, and placed on the retired list. This humiliation, as he regarded it, worked very seriously upon his mind. He gave way to fits of despondency. He spent one summer at the seashore, some two years after he was relieved from his command.

My attention was called to the case by Dr. James Kitchen, of Philadelphia, who invited me to assist at the post mortem. I know nothing myself of the incidents above related, but derived my knowledge from the Doctor himself. The appearance of the body indicated anything else than consumption, or that he had ever been afflicted with it. He had a fine physique, was well developed, and I think weighed somewhere in the neighborhood of one hundred and ninety pounds at the time of his death. He was at the seashore with his family, and had partaken of his usual noonday meal, had retired to his room, and was there seized with a violent fit of oppression of breathing, fell over, and expired in a few minutes.

The post-mortem examination of the chest revealed in the upper portion of the left lung a large cicatrix, of a very dense structure, in area about as large as the palm of my hand; the lung had been compressed, and the chest was filled with clots of blood. I do not exaggerate at all when I say that we took from the chest at least half a bucketful of blood. The patient evi-

dently had died from a violent pulmonary hemorrhage, which had torn through the coats of one of the main pulmonary arteries, and it had flooded the chest, compressing the lung. After the autopsy, I preserved the specimen, and handed it to a fellow-practitioner in Philadelphia for examination.

I cite this case simply to show that spontaneous cures do take place sometimes, even in far-advanced cases of pulmonary disease. I should judge from the size of the cicatrix in this case, that the abscess could not have been smaller than my doubled fists.

DR. T. L. BROWN: I would simply add to what I have already said, that the old gentleman referred to always slept with the windows of his chamber open, even in the winter, and never had a fire.

WILLIAM VON GOTTSCHALK, M.D., of Providence, R. I., had in his younger days made about one hundred and fifty autopsies of soldiers. Of all these he found only four who had perfectly healthy lungs. In most cases there were large or small cicatrices, proving that ulceration had at one time existed there. In some cases abscesses existed at the time of death. In others tuberculous deposit had taken place, like charcoal points, scattered through the lungs like dark sand. He thought the Institute should establish a department of climatology, for the benefit of the sick, more especially with the view that physicians might know just where to send patients.

DR. L. PRATT, of Wheaton, Ill., thought the results of treatment would be better if we had a better knowledge of the anatomical seat of action and kind of action of our remedies. He related a case of a woman who ten years ago had all the evidences of consumption. She was told to be out in the air as much as possible, and to take large quantities of white sugar at each meal. She did so, and is to-day well and hearty. He knew of a physician who lived in a locality where phthisis prevailed extensively, and who used Arsenicum very successfully. We know little of the anatomical seat of action of our remedies, and in this particular our Materia Medica may be said to be deficient. He had great faith in the hygienic treatment of phthisis, but he thought it was high time that we had looked to our

Materia Medica for something more substantial for the cure of phthisis than we had found therein heretofore.

DR. SWAZEY said it was refreshing to him to hear cases of cure related without too much stress being laid on the remedies which have been used. Dr. Brown has given us a case in which hygiene had a large share in the cure. Of course most of us have had similar cases. He was far from disapproving the use of medicines in these cases, but he placed more reliance on other means. Some of the cures reported were due to what might be called the tenacity of life of some individuals. He had had a patient who failed gradually from phthisis, and died after a few years. Autopsy disclosed that there was none of the left lung whatever excepting a trace perhaps, and the right lung was useless excepting a portion of about the size of a man's fist. This shows how life is held on to in some cases under proper hygienic measures. In these cases he discourages the use of animal fat. He attached great importance to the diet.

DR. GEORGE A. HALL, of Chicago, said he ordered in these cases farinaceous food and fruits almost exclusively, forbidding the use of animal food, especially pork, as a general thing, but allowing beef and mutton in some cases. He was willing to admit that the want of success in the treatment of phthisis was a disgrace to the medical profession, but he was not willing to allow it to ever remain so. He appreciated at their full value all hygienic measures in the treatment of this disease, and thought that at present they were the most efficacious and reliable; but he was, nevertheless, convinced that medicinal means could and would be found which would place the disease in the rank of the ordinarily curable maladies. We have had cases of cure related, and the remedies given have been mentioned, but yet we have not been told why this remedy or that, why Arsenicum or Hepar was given. Now this should not be so, and would not long be so if physicians would set themselves diligently at work at the Materia Medica, and endeavor to work out a therapeutics of pulmonary diseases on a differential basis.

DR. CLEMENT PEARSON, of Cleveland, O., had no doubt that the cases reported by Dr. Clarke as cured were so cured, and that the symptoms he related existed, and yet there might not

have been a particle of tubercular deposit. He had been surprised that none of the gentlemen who had related cases had referred to the state of the pulse, which he regarded as the only certain index of a tubercular condition of the lung. "Bring me," said he, "a patient with hectic fever, a cough, with purulent expectoration, emaciation, and night-sweats—all the symptoms in fact of tuberculous disease of the lungs—and a pulse of 70, and I will assure you there is very little danger if the patient is properly treated. On the contrary, when a patient comes into my office and says: 'Doctor, I have nothing the matter with my lungs, but my throat is a little sore, and I have had an irritation there for some time;' and I find this patient with a cough, and some other symptoms, and a pulse of 120, or thereabouts, I am strongly led to believe there is danger, just because the patient assures me there is no disease of the lungs, and, secondly, because of the pulse."

He remembered having been called, a few years ago, to see a gentleman, sixty years of age, who was propped up in bed; the lower extremities were cold; he had a slight thin cough and night-sweats. He had had almost everything which came within the range of the allopathic pharmacopœia, including wine and whisky, *ad libitum*, which he, Dr. Pearson, regarded as poisonous in these cases, as in almost all others. His physicians had said he had phthisis pulmonalis, and that "one of his lungs was entirely gone and the other was going." He had telegraphed to his wife and daughters to come and see him die, and expected his death to occur at any moment. He assured this man that he had nothing more than a bronchial catarrh, which would be cured in a few weeks. It was cured in five or six weeks, and the man lived for six years thereafter, and died of dropsy. This patient had a good pulse. So far as the treatment laid down by Dr. Clarke was concerned, he, Dr. Pearson, did not approve it, and had no confidence in it. For himself, he preferred and used remedies in the two-hundredth potency. He remembered a case which occurred about twenty years ago, where the patient, a man, had night-sweats, œdema of the lower extremities, hectic fever, great emaciation and exhaustion, had to sit propped up in bed in one position, and could hardly be called comfortable even in

that posture. He had had pneumonia, which had resulted finally in the formation of an abscess. The Doctor discharged the pus through the thoracic wall, gave the man Sulphur, and he is alive to-day, and enjoys a good measure of health.

He remembered the case of two maiden ladies, both of whom appeared to be affected in a precisely similar manner, *i. e.*, with pulmonary consumption. One of the sisters died at the age of thirty-eight, with the disease well marked, and the other sister appeared to be certainly drifting in the same fatal direction; but this woman came under his care, and he cured her with Stannum, administered in the two-hundredth potency, and a system of rigid dietetics.

It was surprising to what an extent the lung-tissue would become destroyed before death resulted. He remembered two autopsies made by himself, in both of which there was scarcely a vestige of lung remaining.

Dr. G. H. Wilson, of West Meriden, Conn., moved that the chairmen of bureaus present first in order the papers of those who are present at the meeting; and that the papers of those who are absent be presented afterwards, in such order as the chairmen of bureaus may agree upon.

This motion was adopted.

On motion of Dr. T. C. Duncan, of Chicago, the Institute then adjourned until 9.30 o'clock on Wednesday morning.

SECOND DAY.

MORNING SESSION.

The Institute was called to order by the President, at 9.30 o'clock.

The resignation of J. H. Marsden, M.D., of York Sulphur Springs, Penna., was presented by the Secretary. On motion, the resignation was accepted.

BUREAU OF CLINICAL MEDICINE.

(Continued.)

GEORGE A. HALL, M.D., of Chicago, then read his paper entitled *Hints on the Management of Phthisis Pulmonalis.*

E. C. FRANKLIN, M.D., of St. Louis, Mo., thought the medical treatment of phthisis should receive our earnest attention. It is the most important disease that falls under the notice of medical men. He was much pleased with the remarks of Dr. Pearson, when he spoke of the pulse in phthisis, and also with the remarks of Dr. Gottschalk. But there was one point that had not been referred to, which, he believed, defined phthisis pulmonalis or tuberculosis of the lung—the character of the sputa thrown off from the mucous membrane of the bronchi, as revealed by microscopic examination. He had heard many remedies mentioned, but no indications for their use had been given and he had learned nothing from that. One gentleman cured a case by giving two meals a day, another by hygiene, another by abrogation of meats, and another by the free use of meats. Now he had not got at the pith of the treatment from all these remarks. He had cured cases with the characteristic sputa without medicines or strict dietetic rules, simply by the use of the lungs. He believed more people died of this disease in consequence of disuse of the lungs than from any other cause. He believed air to be the proper stimulant for the lungs, as exercise is for the muscles. Persons with tendency to lung disease, or having lung disease, don't like to take a full and deep inspiration, and by this disuse of the lungs the disease grows on them stealthily as it were, and they don't take in enough oxygen to serve their purposes. He then related a case in which the chest of a consumptive woman increased over 3½ inches in less than three months by systematic free respiration of atmospheric air, and she now has a fair share of health, and weighs fifteen or twenty pounds more than she did, but she still has tuberculosis. This case shows what can be done by regular respirations of pure air. He had no confidence, he regretted to state, in any known medicine for the treatment of tuberculosis of the lungs; and he would be obliged to any gentleman who had greater confidence than he had in any

one remedy, to make known the fact for his benefit and that of his patients.

J. C. BURGHER, M.D., of Pittsburg, Penna., Vice-President, said he had prepared a paper on "The Regular and Systematic Respiration of Pure Air as a Prophylaxis of Phthisis." He used a small glass tube, directing the patient to breathe through it one or two minutes at a time, three times a day, drawing as full a breath as possible, increasing one minute each time until the patient gets to using it fifteen or twenty minutes, and then gradually decreasing to one or two minutes again. By this means a contracted chest can be increased from one to three or four inches in three months.

ROLLIN R. GREGG, M.D., of Buffalo, N. Y., addressed the Institute at great length on the subject of Phthisis Pulmonalis and its Treatment, and exhibited a number of photographs illustrating his theory of tuberculosis of the lungs. [The remarks of Dr. Gregg were heard so imperfectly by the stenographer, that it was impossible to give them an intelligible rendering. They are therefore omitted with regret.—GEN. SEC.]

DR. E. C. FRANKLIN moved that Dr. Gregg prepare an abstract of his Observations on Phthisis and its Treatment, and that the same be published with the Transactions of the Institute, together with the illustrations he had exhibited.

Agreed to.

THE PRESIDENT announced the Bureau of Materia Medica, &c., for the ensuing year, as follows:

Bureau of Materia Medica, Pharmacy, and Provings for 1874.

T. F. ALLEN, M.D., *Chairman*,	New York.
H. H. BAXTER, M.D.,	Cleveland, O.
WALLACE MCGEORGE, M D.,	Woodbury, N. J.
WILLIAM E. PAYNE, M.D.,	Bath, Maine.
E. M. HALE, M.D.,	Chicago.
O. P. BAER, M.D.,	Richmond, Ind.
J. P. DAKE, M.D.,	Nashville, Tenn.
CONSTANTINE HERING, M D.,	Philadelphia.
CHARLES C. CROPPER, M.D.,	Oxford, O.

E. M. KELLOGG, M.D., of New York, then read his paper

entitled *Statistics of the Comparative Mortality in the Cities of New York, Boston, and Philadelphia, under Homœopathic and Allopathic Treatment.*

The papers of the Bureau of Clinical Medicine which had been read, were, on motion, accepted and referred to the Committee of Publication.

The remainder of the papers of the bureau were then read by title, accepted, and appropriately referred.

On motion, the bureau was declared closed.

THE PRESIDENT then appointed the following members to constitute the Bureau of Clinical Medicine for the ensuing year:

Bureau of Clinical Medicine for 1874.

L. E. OBER, M.D., *Chairman*,	La Crosse, Wis.
H. B CLARKE, M.D.,	New Bedford, Mass.
WILLIAM EGGERT, M.D.,	Indianapolis, Ind.
E. C. BECKWITH, M.D ,	Zanesville, O.
GEORGE A. HALL, M.D.,	Chicago.
W. H. HOLCOMBE, M.D.,	New Orleans, La.
W. H. WATSON, M.D.,	Utica, N. Y.
DAVID COWLEY, M.D.,	Pittsburg, Pa.
BUSHROD W. JAMES, M.D ,	Philadelphia.

J. P. DAKE, M.D., presented and read the report of the Committee to investigate certain alleged "Unauthorized Changes in the By-Laws," as follows:

REPORT OF COMMITTEE ON INVESTIGATION OF UNAUTHORIZED CHANGES IN THE BY-LAWS.

Your Committee on "Unauthorized Changes in the By-Laws," respectfully report that upon inquiry they find the following to be the history of the case:

1. During the session of the Institute in Philadelphia, 1871, the Bureau of Organization, Registration, and Statistics, through Dr. Henry M. Smith, submitted amendments changing the by-laws, so as to avoid the use of the word "he" in speaking of its members, and so as to add another bureau, the Bureau of Medical Literature, which were unanimously adopted.

2. During the same session, Dr. T. C. Duncan, of the same bureau, offered "the final report," in which several amendments to the Constitution and By-laws were recommended, looking to the reorganization of the Institute upon the basis of a delegated body, all of which were laid upon the table, and kept there by a subsequent vote refusing to take them therefrom.

3. The Secretary, Dr. R. Ludlam, says, "The bureau furnished me with but one paper containing those amendments, which paper came from Dr. H. M. Paine, and which was given by me to Dr. Foster without the least alteration."

4. The immediate editor of the Transactions, Dr. R. N. Foster, says that no copy of amendments to the by-laws adopted came into his hands, except as set forth in a paper furnished to the Secretary by Dr. H. M. Paine; and that Article IX in said paper was embraced in a bracket, or red line drawn along its margin, with the word "adopted" written below; and that he therefore, without hesitation, had the article printed as there found; also that on account of similar marks upon Article X he had that printed in like manner.

Dr. Foster further says that the original copy furnished by Dr. Paine, and bearing the red marks and word "adopted," was lost in the great fire, leaving him only a galley proof, which he afterwards used in making out the report of the Bureau of Organization, Registration, and Statistics, and which is still extant.

5. Dr. Henry M. Smith, Chairman of the Bureau of Organization, Registration, and Statistics, says, "The amendments to omit the word 'he,' and to form a new Bureau on Medical Literature, were written out and handed to the Secretary at the meeting in Philadelphia."

6. The changes in Articles IX and X were calculated to misrepresent the wishes of the Institute, giving it the character of a delegated body, in accordance with the wishes of the minority, as set forth in the report made by Dr. Duncan and laid upon the table toward the close of the session in Philadelphia.

And your committee, in view of the history just given, and the importance of preserving intact the organic and governing laws of this great society, have sought to ascertain exactly where should rest the blame for such unwarrantable changes in its by-laws. After much correspondence and comparison of statements we have been able to reach the following conclusions, which we submit with the hope and belief that nothing of the kind may ever occur again:

1. That Dr. Henry M. Smith, of the Bureau of Organization, Registration, and Statistics, did pass into the hands of the Secretary, or his assistants, at Philadelphia, a copy of the amendments to the by-laws adopted by the Institute.

2. That such copy was mislaid, lost, or abstracted from the portfolio of the Secretary before he had looked over its contents preparatory to publication.

3. That the discovery of the absence of said copy, and the discrepancy between the record and the amendments, as taken from Dr. Duncan's rejected paper, should have been followed by an immediate call upon the Chairman of the Bureau of Organization, Registration, and Statistics for a copy of the missing paper.

4. That the disturbance attendant upon the great fire in Chicago occurring just as that portion of the annual report was in the printer's hands, alone

excuses the Secretary for allowing such unwarrantable changes in the text of the by-laws.

5. That under all the circumstances the Secretary and his editor, Dr. Foster, did what they are excusable for, as regards the by-laws, and deserve the lasting gratitude of the Institute for bringing out its Transactions so well, amid such unusual and overwhelming difficulties.

6. And finally, that the "unauthorized alterations" were the result of a peculiar chain of accidents, and not of evil purposes—of extraordinary untoward events, and not of criminality on the part of any persons known to your committee.

J. P. DAKE,
J. C. BURGHER,
L. E. OBER,
Committee.

On motion, the report was accepted, and the committee discharged from further consideration of the subject.

THE SECRETARY presented and read a partial report from the *Bureau of Organization, Registration, and Statistics*, being a draft of a

NEW CONSTITUTION AND BY-LAWS,

which had been prepared by the bureau in accordance with instructions from the Institute at the Twenty-fifth Session, held in Washington, D. C., in May, 1872.

DR. S. R. BECKWITH, of Cincinnati, said it would be impossible for the Institute to take proper action on the report during the present session. He therefore moved that the Secretary have the report printed in pamphlet form, and the members each supplied with a copy in conjunction with the volume of Transactions, that the report may be taken up for action at the next meeting of the Institute.

Agreed to.

THE PRESIDENT: The next business in order is the presentation of the report and papers in charge of the

BUREAU OF OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

R. LUDLAM, M.D., of Chicago, Chairman of the Bureau, announced that the subject selected by the bureau for special report was *Leucorrhœa*, and that the following papers were in their possession:

Leucorrhœa in its relation to Menstruation; by O. B. GAUSE, M.D., of Philadelphia. (Section IV, Art. XXXIII.)

Leucorrhœa as a Conservator; by JOHN C. SANDERS, M.D., of Cleveland, O. (Section IV, Art. XXXIV.)

Leucorrhœa as modified by the different Dyscrasiæ; by R. LUDLAM, M.D., of Chicago.

Leucorrhœa from Vaginal Catarrh; by JOHN J. YOULIN, M.D., of Jersey City, N. J.

A Case of Dystocia, followed by Puerperal Mania; by WALLACE McGEORGE, M.D., of Woodbury, N. J. (Section IV, Art. XXXV.)

A Case of Prolapsus Uteri, with Adhesions; by MERCY B. JACKSON, M.D., of Boston, Mass. (Section IV, Art. XXXVI.)

Inversion of the Uterus; by MARY SAFFORD BLAKE, M.D., of Boston, Mass. (Section IV, Art. XXXVII.)

A Case of Encephalocele; by W. K. WILLIAMS, M.D., of Philadelphia. (Section IV, Art. XXXVIII.)

O. B. GAUSE, M.D., of Philadelphia, read his paper entitled *Leucorrhœa in its relation to Menstruation.* The paper was, on motion, accepted, and referred to the Committee of Publication.

J. C. SANDERS, M.D., of Cleveland, O., then read his paper entitled *Leucorrhœa as a Conservator.*

S. R. BECKWITH, M.D., of Cincinnati, O.: Mr. President, I do not see how this Institute can allow the paper just read by my friend, Professor Sanders, to pass unchallenged, containing such views of pathology as we have just listened to. The paper presents a series of errors, in my opinion; the first of which is, the want of a proper and correct statement of the anatomy of the cervix uteri. He seems to have passed it by in general terms, not dwelling upon the minute anatomy of the parts, the peculiar glandular structures, which give to the cervix a character all its own. In my opinion, sir, this is a grievous error in a paper of this kind. Again he says, if I quote him correctly, that this disease, cervical leucorrhœa, or cervical endometritis, is exceptional and self-limiting. I appeal to all physicians of experience to answer me whether it is not, on the contrary, a disease very common in the community. It is very common, sir, and fraught with evil consequences in many instances, such as disordered con-

ditions of the mind, for example, melancholia, irascibility, and even complete dementia. If we question the attending physicians of any insane asylum, we will be told that the most fruitful cause of hysteria and mania in women is leucorrhœa, and its occasioning cause. If the women thus affected had been properly treated, and cured of this disease, they would not have become subjects for the asylum. We have a diseased, indurated, fibrous structure pressing upon the hypogastric nerves, *i. e.*, the periphery of these nerves, setting up irritability of the central plexuses, and then by reflex action creating disorder of the entire nervous system. Is this a disease to be called simply local? Is it to be regarded as a conservator?

As to its being a self-limiting disease, I deny the assertion *in toto*. It may be more truthfully said that with all our experience, and with all our resources, we are still unable to certainly cure cervical endometritis. I am of the opinion that for the reasons I have expressed, my friend's paper is one that should not be received without a protest.

On motion, DR. SANDERS's paper was received and referred to the Committee of Publication.

MARY SAFFORD BLAKE, M.D., of Boston, Mass., then read her paper on *Inversion of the Uterus.*

On motion, Dr. Blake's paper was accepted and appropriately referred.

DR. R. LUDLAM then read the remaining papers of the bureau by title; whereupon they were accepted and referred to the Committee of Publication.

DR. I. T. TALBOT moved that the Bureau of Obstetrics, &c., be declared closed, which was agreed to.

THE PRESIDENT appointed the following members to constitute the Bureau of Obstetrics for the ensuing year:

Bureau of Obstetrics for 1874.

J. C. SANDERS, M.D., *Chairman*, ...	Cleveland, O.
J. F. COOPER, M.D., ...	Allegheny, Pa.
MARY S. BLAKE, M.D., ...	Boston, Mass.
O. B. GAUSE, M.D., ...	Philadelphia.
F. B. MANDEVILLE, M.D., ...	Newark, N. J.
R. LUDLAM, M.D., ...	Chicago.

DR. N. F. COOKE, of Chicago, presented the following preamble and resolutions:

WHEREAS, It is especially the province of homœopathic physicians to occupy advanced ground on all questions relating to the physical amelioration of the human race; and

WHEREAS, There exists in the criminal and medical codes an expression which, by implication, sanctions the commission of crime—that is to say, the words "*criminal abortion*;" and

WHEREAS, The artificial induction of abortion is, under any and all circumstances, the taking of human life, and therefore criminal,

1. *Resolved*, That the American Institute of Homœopathy hereby expunges the word "*criminal*" from its medical code, wherever found as qualifying the word "*abortion*."

2. *Resolved*, That the American Institute of Homœopathy hereby invites the co-operation of the American Medical Association, in the endeavor to obtain the obliteration of the improper distinction wherever it now exists.

DR. COOKE asked that a special hour be appointed for the consideration of this preamble and the amended resolutions. He regarded the subject as the most important one that could engage the attention of the Institute, and hoped that the matter would receive due consideration from every member.

DR. J. P. DAKE moved that the preamble and resolutions offered by Dr. Cooke be taken up for consideration immediately after the Bureau of Gynæcology shall have been declared closed.

Agreed to.

DR. J. P. DAKE: Mr. President, the bureau about to make its report has been called the Sub-bureau of Gynæcological Surgery. I move you, sir, that hereafter its title shall be the Bureau of Gynæcology, the prefix *sub* being thereby abolished, and the bureau made to include the diseases of women, not connected with obstetrics proper, as well as the surgical diseases of the sex.

Agreed to.

S. R. BECKWITH, M.D., then presented the report and papers of the

SUB-BUREAU OF GYNÆCOLOGICAL SURGERY,

as follows:

Cervical Endometritis; by S. R. BECKWITH, M.D., of Cincinnati, O. (Section IV, Art. XXXIX.)

Clinical Cases; by CORNELIUS S. ORMES, M.D., of Jamestown, N. Y. (Section IV, Art. XL.)

Electrolysis in Ovarian Tumor; by WILLIS DANFORTH, M.D., of Chicago.

The Institute then adjourned, to meet at 3 P.M.

AFTERNOON SESSION.

The Institute reassembled at 3 o'clock, President Small occupying the chair.

M. MAYER MARIX, M.D., of Denver, Col., presented the following preamble and resolutions:

WHEREAS, The interests of scientific homœopathy imperatively demand that all sources of information tending toward the successful treatment of disease or the amelioration of physical suffering should be made available; and

WHEREAS, Climatic influences are of the greatest importance in many forms of acute and chronic diseases; and

WHEREAS, The area of the United States is so vast that it presents the greatest variety of climate; therefore

Resolved, That the President of the American Institute of Homœopathy be and he is hereby authorized, to organize a Committee of Climatology, to be composed of one member from the North Atlantic coast, one member from the Atlantic coast, south of latitude 32°, one member from the western and one from the eastern extremity of the interior lakes, one from the Middle States; one from the Northwestern and one from the Southwestern States; one from the high interior, and one from the Pacific coast. And it shall be the duty of the Bureau of Climatology to present at the next session of the Institute, and for its consideration, a complete and systematized report of the climatology of the various sections of the United States, enumerated above, and with special reference to their adaptability in the treatment of disease.

The preamble and resolution were on motion adopted.

SUB-BUREAU OF GYNÆCOLOGICAL SURGERY.

(Continued.)

DR. R. S. BECKWITH said he regretted that he had been compelled to come before the Institute with so few papers. Many members to whom he had written soliciting contributions, had promised to furnish papers; but beyond those mentioned at the

close of the morning session he had none to present. He then read extracts from Dr. Danforth's paper on *Electrolysis in Ovarian Tumor*, which, he remarked, was a very interesting and valuable contribution to gynæcological surgery. The paper had been already published in the *United States Medical and Surgical Journal*, and it would be for the Institute to determine whether a paper previously published should appear in the volume of *Transactions* of the Institute.

DR. C. S. ORMES, of Jamestown, N. Y., then read his paper, being an account of a case of *Ovarian Tumor* and one of *Ovarian Abscess* treated by him.

T. C. DUNCAN, M.D., of Chicago: I should be glad to hear from Dr. E. C. Franklin, of St. Louis, on the subject presented in Dr. Danforth's paper.

DR. E. C. FRANKLIN: Mr. President, I was, so far as I know, the first surgeon in this country to resort to this method of treatment for ovarian tumor. I believe the operation has been performed in other countries, once or twice. I had been led to contemplate the operation from reading Professor Danforth's paper, published in one of our journals, of his operation for hydrocele. I had a case that had been under the care of physicians of the old school. The lady was greatly opposed to ovariotomy, and not knowing of any medicines that would prove curative in such a case, I determined to try the plan laid down by Dr. Danforth, upon the principle that, if it had been efficient in hydrocele, it might, and no doubt would be, equally efficient in removing an ovarian cyst. I made three applications, feeling my way very cautiously, I can assure you, as it was new ground to me. At the first operation I stopped the action of the battery sooner than at those which followed; while at the third operation I continued until there was a considerable whitening of the integuments around the needles. After this the tumor subsided, and the woman went to her home cured. There is now no evidence of her ever having had an ovarian tumor, or of her having been operated upon for such a tumor. I reported this case in the *Medical Investigator*, and received a response from Professor Danforth. To that gentleman I give the credit of having suggested the operation.

DR. J. C. BURGHER: What was the character of the tumor?

DR. E. C. FRANKLIN: A unilocular ovarian cyst, so far as I could ascertain.

WILLIAM OWENS, M.D., Cincinnati, O.: Did there result in this case a condensation or coagulation of the albumen of the cyst, or were the contents absorbed? If the fluid was absorbed, what became of the albumen? We know that in the fluid contents of ovarian cysts, we find a large percentage of albumen. I had a case, about nineteen years ago, which I treated medically, using a single remedy. The tumor was arrested in its growth, remained in the same condition during a period of eighteen years. It then suddenly increased in size, and was diagnosed as a unilocular ovarian cyst, and I have since been obliged to resort to tapping four times, as the only means of gaining relief for the patient.

DR. FRANKLIN: The gentleman asks questions which I cannot answer. If I am ever privileged to hold a post-mortem examination of this case, I shall then probably be able to give him satisfactory replies. All I know is, that it was a case of ovarian cyst, that I operated as I have already related, and that the tumor disappeared. I used a Farraday battery, of thirty-two cells. I used two needles, one being entered on one side of the tumor, and the other on the other side. I relaxed the abdominal parietes as much as possible, and encircled the tumor with an iron ring, to secure its remaining fixed while the operation was being proceeded with. I felt like taking to myself a certain amount of honor for the operation as an innovation, but soon discovered that it had been performed before.

DR. WILLIAM OWENS: The operator is certainly entitled to a great deal of credit for his boldness and success. I would remark that an ovarian tumor, weighing from thirty to forty pounds, contains from one-sixth to one-fourth of its contents of albumen.

DR. FRANKLIN: The tumor I operated upon was about the size of a cocoanut, and weighed, I should judge, from four to five pounds. I do not know what effect the needles and battery would have upon a tumor of the size mentioned by Dr. Owens.

DR. S. R. BECKWITH then read his paper on *Cervical Endometritis.*

DR. T. C. DUNCAN said he should like to hear from Dr. J. G. Gilchrist, on the subject of treating ovarian tumors by medication alone. He believed that gentleman had had some experience in this direction.

DR. J. G. GILCHRIST, M.D., Tidioute, Pa.: I was not prepared to report this case, and some of the details have doubtless escaped my memory. The patient was a young lady, between twenty-five and thirty years old, who had for five years been almost constantly under the treatment of an allopathic physician for what had been called an ovarian tumor, situate in the left iliac fossa. She had been without medical treatment of any kind for more than a year before I was called to attend her, and was thoroughly discouraged as regards the results of medical treatment. Her general health was good, but there was marked and obstinate constipation, so that her bowels very seldom moved, and then only with the greatest difficulty. She complained very much of shortness of breath, which was especially marked during the menstrual period. The menses anticipated, usually coming on three or four days before the proper time; the flow being scanty, dark-colored, and offensive, and accompanied with sharp cutting pains in the abdomen, which caused her to scream as if in great agony. I prescribed Colocynth 200th, a dose every seven days, commencing at the close of a menstrual period. At the coming period her sufferings seemed to be aggravated; the pains were more severe, and the flow amounted to almost nothing at all. I then gave her a dose of Colocynth, one thousandth potency, and there was a marked diminution of suffering at the next period. At the close of this period I gave her a dose of Colocynth, one hundred thousandth potency, and from this time the tumor began to diminish. At this time there is no vestige of the tumor to be discovered. She had prolapsus uteri, which has also disappeared, the uterus having reposited itself under the action of the colocynth.

R. R. GREGG, M.D., Buffalo, N. Y.: I have repeatedly known leucorrhœa and other diseases of women, to follow after the relief of catarrhal complaints and diseases of the lungs; and

I have, on the other hand, seen diseases of the lungs set in after the local treatment of uterine diseases. I might relate many cases in point, but I will not take up the time of the Institute by doing so. I have thought a great deal about the causes of prolapsus uteri; whether the displacement of the womb was due to some disordered condition of the organ itself, or whether the primary cause might be a disordered condition of the nerve-centres.

Dr. Brown-Séquard recently asserted during a lecture in Washington, D. C., that bedsore had its origin in the nervous centres, and that it did not result from pressure, irritation, or any other local cause; and that autopsies had revealed these disordered conditions of the nervous centres. These remarks have been food for thought to me. I have recently had a case of threatened insanity come under my notice, which is connected with prolapsus uteri and specular irritation, which is now under the care of one of the most eminent physicians of Buffalo, N. Y., Dr. W. C. White. The patient has most intense pain in the occiput.

DR. S. R. BECKWITH: I wish, Mr. President, to say a few words in regard to the remarks made by myself on Professor Sanders's paper. There seems to be an opinion that my strictures on that paper were dictated by personal motives. I wish to remark that Dr. Sanders and I have been warm friends since childhood's days, and there is no misunderstanding whatever between us, but on the contrary the warmest personal regard. I simply discussed the paper, and this Dr. Sanders understands perfectly.

JAMES B. OWENS, M.D., Lebanon, O.: I would inquire of Dr. Gilchrist as to the nature of the tumor treated by him with Colocynth?

DR. J. G. GILCHRIST: It was an encysted tumor.

DR. OWENS: The case I am about to relate was reported to the Ohio State Medical Society last spring. It was that of a young girl, fourteen years old. She had symptoms similar to those described by Dr. Gilchrist, as occurring in his patient. She was attacked primarily with congestion of the right lobe of the liver and paralysis of the left side of the body. She remained in this paralyzed condition for some time, not being able

to raise her head from the pillow. She was greatly constipated, and the intestines were very much distended. I gave her a dose of Sulphur, of the one thousandth potency, and at the end of a week gave her another dose. On the twenty-first day her bowels were moved very freely, and continued to move until she had passed an enormous quantity of fæces. I believe that many of these so-called ovarian and abdominal tumors are mere accumulations of fæces in the intestinal canal; and, if we treat the symptoms according to homœopathic principles, the cases will come out all right.

G. W. SWAZEY, M.D., Springfield, Mass.: I wish to make a few remarks upon one or two points that have occurred to me. And first, in reference to mechanical treatment, for the cure of endometritis, by keeping the uterus in its proper position if displaced. I have very frequently been called to attend cases of this nature, and they present so many phases that it is a puzzle sometimes to know what is best to be done, and what should be left undone. In regard to pessaries, Dr. Ludlam tells me he has some forty different varieties of pessaries, and I have seen them by hundreds in the shops. They appear to be in great demand, both by physicians and patients, but so far as my observations go they often disappoint those who use them. I have used many kinds of these supporters, some of which have done very well and some have done very badly. I finally settled down to this simple idea: Procuring a large knitting-pin of hard rubber, I made it of a suitable length, and then bent it over a lamp, to suit what I judged to be the requirements of the case, slipping a piece of rubber tubing over the joint where the two ends come together, to make the pessary complete. This instrument thus simply constructed is easily applied, and may be removed without difficulty or danger by the patient herself. I trust some members will try this plan and report to me whatever success they may have with it. I have observed that pessaries made of soft rubber, set up an offensive discharge from the vagina. It seems to me that the chief cause of failure in the use of pessaries is a want of mechanical ingenuity on the part of those who apply them.

DR. J. G. GILCHRIST assured the Institute that the case he

related was one of ovarian tumor, and that he was competent to diagnose such a tumor.

DR. OWENS did not wish to be understood as hinting that Dr. Gilchrist's case was not one of ovarian tumor.

DR. R. LUDLAM: Dr. Owens has made my speech for me, in part, at least, but I do not agree with the Doctor as to the readiness with which these tumors are disposed of by medication, or no medication at all. And in saying this, I do not mean to reflect on Dr. Gilchrist, who is no doubt competent to know what a tumor is when he sees one. I think that the greatest care should be exercised in making a differential diagnosis of abdominal tumors, especially of those occurring in women, and more particularly so when there is any intention of reporting the cases to the Institute, to other societies, or in our journals, because it is an easy matter for the best of us to be mistaken, and to regard as uterine or ovarian, any tumor or swelling that may disappear when we give our medicines. I enjoyed the excellent paper of my friend Dr. Beckwith very much. I believe that many cases of endocervicitis are due to the pressure and rubbing of the cervix of a prolapsed or otherwise displaced uterus upon the vaginal wall, aggravated as the patient moves about in walking, dancing, skating, &c. The malposition of the organ is the cause of the diseased condition of the cervix, and in my opinion, in the majority of cases of this nature the best medical treatment, whether constitutional or local or both, will fail of accomplishing a curative result, until the cause is removed by the reposition of the uterus, and its being retained in proper position, suspended as it were, until the cervical engorgement passes away. I must say that I cannot see anything new in the suggestion thrown out by Dr. Swazey in reference to an impromptu pessary. When constructed, his pessary does not differ from Hodge's U pessary or "sleigh runner," which can also be bent by the application of heat to suit the requirements of a given case. And some of us are too busy to spend time over the construction of a pessary, when we can buy one already made at a very low price at the nearest drug store.

DR. G. W. SWAZEY: I claim this advantage for the pessary I have described, that it can be removed by the patient with-

out difficulty or danger. This cannot be claimed for many of the ordinary pessaries, and indeed the removal of some of these instruments even by physicians is a matter of some difficulty, and often occasions a great deal of suffering.

F. R. McMANUS, M.D., Baltimore, Md.: The gentlemen have been talking about pessaries of various kinds. But a short while ago, one of the most distinguished of the ladies of Baltimore asked me which pessary I recommended, and I told her that I never recommended or used pessaries of any kind. The discussion calls to my mind the case of a lady who had been married five years, and who had one child four years old. She had one of the most prominent members of the faculty for her physician, who had recommended the insertion of a gold pessary, which she had procured and worn for eighteen months at the time I was called to attend her. I recommended the removal of this pessary, to which she consented, and in taking it away while she was standing, the womb came down and was as completely prolapsed as it had been at the time of the introduction of the instrument, a year and a half previous. I then advised that she should abandon the use of a pessary, and keep a horizontal position for two months. She consented to this plan, which, together with two doses of Sepia of the thirtieth dilution per week, produced a perfect cure of all her uterine troubles; and within nineteen months from the time she passed from my treatment, she became the happy mother of a daughter. I might justify myself in using a pessary in the case of a poor woman who was obliged to be on her feet nearly all day to do her work and earn her bread, but in the case of a woman who was able to lie by, I should insist upon that, and would not allow any pessary to be used.

On motion, the papers submitted by the Sub-bureau of Gynæcological Surgery were accepted and referred to the Committee of Publication.

On motion, the bureau was declared closed.

REPORT OF THE BOARD OF CENSORS.

DR. F. R. McMANUS, Chairman of the Board of Censors, read

the names of applicants for membership, who had been found eligible for admission by the Board.

On motion, the report of the Board of Censors was accepted, and the physicians whose names had been thus presented were declared members of the Institute.*

THE PRESIDENT announced that the Bureau of Gynæcology would be constituted as follows for the ensuing year:

Bureau of Gynæcology for 1874.

S. R. BECKWITH, M.D., *Chairman*, .	Cincinnati, O.
SAMUEL LILIENTHAL, M.D., . .	New York.
R. B. RUSH, M.D., ...	Salem, O.
C. ORMES, M.D., ...	Jamestown, N. Y.
WILLIS DANFORTH, M.D., . .	Chicago.
MICHAEL FRIESE, M.D., . . .	Harrisburg, Pa.
W. H. HUNT, M.D., ...	Covington, Ky.

CRIMINAL ABORTION.

The resolutions offered at the morning session by Dr. N. F. Cooke were then taken up for discussion, in accordance with a motion then adopted.

DR. N. F. COOKE said: Mr. President, I do not wish to detain the Institute by the delivery of any formal speech on the subject presented in the resolutions I have laid before you, nor do I think there is any necessity for having the resolutions reread. I will speak to them very briefly. My object in offering them is to endeavor to close still more the door which seems now to stand nearly wide open for the commission of the terrible crime of abortion. And beyond this, I hope this Institute will adopt the preamble and resolutions, in order to show the faith they have in the efficacy of homœopathic medicines to relieve women from the systemic irritations which sometimes accompany pregnancy. I believe there is no condition of irritation of the system of a pregnant woman that cannot be removed, relieved, or held in abeyance by homœopathic treatment, to the extent of

* For the names and time and place of graduation of all persons admitted to membership during the session, see "COMPLETE REPORT OF THE BOARD OF CENSORS."

allowing the woman to go to the end of her pregnancy without endangering her safety or that of the fœtus. And in the exceedingly limited number of cases in which the contractions of the pelvis would seem to furnish a pretext for the destruction of the fœtus prior to the term of viability, the operation of embryotomy can be safely waited for in perhaps every case that might come within the experience of the members of the Institute, if their numbers were multiplied by a good many. Or if, supposing the most extreme case, there should be one in which the dimensions of the pelvis were clearly such as would render it impossible that a living child should be born at the period of viability, such cases must be so very rare as to come scarcely within the lifetime of a physician. Whereas, we have in the records of some men's practice that they have found necessity for producing premature delivery thirty, forty, fifty or more times.

In case these resolutions are adopted, and the members of the Institute obey the behests of the Institute, as they would be bound to do, thousands of lives, of mothers and of children, would be saved. And there remains for that isolated case just mentioned what danger? The danger attendant on the Cæsarean section, which is, after all, a simple operation, as a dozen gentlemen here more competent than I, will tell you.

I contend, sir, therefore, that the passage of these resolutions must inure greatly to the advantage of the Institute, inasmuch as it is our object to save life, and we are here afforded an opportunity of saving uncounted lives. I shall argue the question no further, sir, trusting that the Institute will vote favorably upon it.

DR. F. R. MCMANUS objected to the resolution inviting the co-operation of the American Medical Association.

DR. COOKE said that part of the matter was of very slight importance.

DR. I. T. TALBOT: I fully agree with my friend Dr. Cooke in his abhorrence of criminal abortion, but I am not ready to subscribe to the language of these preambles and resolutions, and am certain that they are not in good taste. One of these states that "it is especially the province of homœopathic physicians to occupy advanced ground in all questions relating to the physi-

cal amelioration of the human race." Now, although we may all believe this to be true, it does not seem to be in good taste to assert it in so public a manner. And when we take this assertion into connection with the last of the resolutions, in which we invite the co-operation of the American Medical Association, it would appear that we were asserting that we were about to occupy advanced ground in accordance with our especial province, and invited them to follow on after us; and certainly this is not in good taste.

Again, this paper says, "There exists in the criminal and medical codes an expression which, by implication, sanctions the commission of crime—that is to say, the words criminal abortion." Now I am utterly at a loss to understand how such words as these can, even by implication, sanction crime. We all know that it has been decided by medical societies near and far that where a jury of physicians shall deem it necessary to induce premature labor to secure the life of the pregnant woman, there is a moral right to the commission of the operation which will bring it about, and no one has a right to say that there is not; and I do not think it would be in good taste for this Institute to declare such a thing. The artificial induction of abortion is, under any and all circumstances, the taking of human life, and therefore "criminal" is another assertion with which I do not agree, and of which I doubt the good taste. The remarks I have just made on the preceding paragraph apply here also. In our State societies and in our local societies we have guarded against the commission of abortion, asserting it to be a crime for any physician to produce abortion on his own responsibility. Now for this Institute to declare that whenever a physician induces premature labor, under any circumstances, he commits a crime, would not only be in questionable taste, but, in my opinion, unwarranted and devoid of common sense.

The first resolution reads: "*Resolved*, That the American Institute of Homœopathy hereby expunges the word 'criminal' from its medical code, wherever found as qualifying the word 'abortion.'" To this I would say that I know of no instance where the words *criminal abortion* are to be found in the code of ethics of this Institute. The words *criminal acts* are used.

In conclusion, I repeat the motion made by Dr. Swazey, and which the Chair did not hear, that the preamble and resolutions be laid on the table.

Seconded by several members, and agreed to.

A TELEGRAM FROM BOSTON—ACTION OF THE MASSACHUSETTS MEDICAL SOCIETY.

THE PRESIDENT: While the Bureau of Surgery is getting ready to make its report, I will take the opportunity to announce that I have received a telegraphic despatch from Boston, which informs us that the Massachusetts Medical Society has this day expelled seven of its members for practicing homœopathy. The announcement was received with laughter and great applause.

DR. R. LUDLAM: Mr. President, I move we suspend the order of business, and hear Dr. Talbot.

Agreed to amid shouts for Dr. Talbot, and applause.

DR. I. T. TALBOT, of Boston, Mass.: Mr. President, criminals are not usually received in this way; however, I accept the situation. This action of the Massachusetts Medical Society, which has just been announced to you, is but another act of the drama which has been played in the old commonwealth of Massachusetts, not for days, nor weeks, nor months, but for years. And this act, by which we have been expelled, for I am one of the criminals, Mr. President, is the best act which has thus far been played, so far as the advantage of homœopathy is concerned. We have not been expelled from an allopathic society, for if it had been that not one of us would have remained in it; but we have been expelled from a medical society, a creation of the State, in which we had rights, inalienable rights, and we have stood up for these rights, and intend to stand up for them, until we are utterly deprived of them by force. I will give you, in a few words, the history of the matter. The old Massachusetts Medical Society was chartered in 1781, and the charter expressly states that every physician of Massachusetts, who is educated according to a certain given standard, and who has a good moral character, shall be entitled to membership in that Society; and not only does it say that he shall become a member, but that any one who shall prevent him shall be liable to a fine of five

hundred dollars for the offence. It is not left to the will of the majority to decide the matter in the case of such an applicant, but, on the contrary, is made the subject of a heavy fine to prevent such a one from becoming a member. Now, some of these physicians who have in years gone by sought and obtained membership in this Society, have been and are engaged in practicing medicine in accordance with the principles and tenets of homœopathy. Matters have been getting warmer and warmer, in consequence of this, during the past twenty-five years. Twenty-five years ago the allopathic majority in the Society tried to exclude the homœopathic minority, but they could not do it. They tried it again about eighteen years ago, but they found then that the laws were against them, and they again gave up. But, when the American Medical Association met at Washington, D. C., three years ago, this matter was stirred up, and the Association said virtually to the Massachusetts Medical Society: "If you don't expel these homœopaths, we will expel you." They came home, and they looked the laws over carefully, and they put their wisest men at work to find out whether there was not some way by which they could get rid of the homœopaths. This committee brought in a report, which strongly stated that there was no legal method by which the homœopaths could be expelled. And yet the Society, although it adopted the report, said they would, nevertheless, try to do that which they had been told they could not do legally, viz., expel the homœopathic minority. To this end they set themselves resolutely at work. One of their statutes said that a member could be expelled who was guilty of crime; but they could not well charge homœopaths with being guilty of crime against the State in practicing their system, since the State had abundantly recognized that system, and had chartered numerous institutions under it, a hospital, a dispensary, and a college to grant the degree of doctor of medicine, which would be recognized in every court in the commonwealth. Well then, what next? Next, they passed a by-law that any one who should be guilty of conduct unbecoming and unworthy an honorable physician and member of the Society might be expelled. And having done this, the next step was to pass a resolution that any member who practiced homœopathy, *was* guilty of conduct unbecoming and unworthy an

honorable physician. A year ago last November the matter came before the Society in this shape. Notices were sent to eight members, summoning them to appear before a board of trial to answer the charge of being guilty of conduct unbecoming and unworthy an honorable physician, &c., in practicing in accordance with an exclusive theory or dogma, and of belonging to a Society whose purpose was at variance with the principles of, and tended to disorganize the Massachusetts Medical Society. No doubt their thoughts were, when they commenced these proceedings, that if they would run out these quaker guns with a grand air, the homœopaths would take to their heels at once, and flee before the Society; that if the matter were done quietly, the homœopaths would not attend the board of trial, and the whole matter would go against them by default. But they were greatly mistaken in their calculations. Within fifteen minutes from the time this precious summons reached us it was in the hands of the printer, and hundreds of copies were struck off, with this additional note at the bottom: "Dear Sir: The above notice has been sent to some of the leading homœopathic physicians of Massachusetts. By inserting it, with such remarks as you may be pleased to make concerning it, you will oblige," &c., and these were furnished to every newspaper in the State. On the next morning, the Massachusetts Medical Society, and the committee on quaker guns, found that the newspaper press throughout the State were publishing their notice, and were making the most severe comments on it.

Having gone thus far, they determined to defy the press and public opinion, and go on with their work. The time for the trial came; the homœopaths appeared; and the newspaper men came ready to take down the proceedings of the "trial" in which they were now so greatly interested. But they were shown to the door, and as each reporter moved away, he sharpened his pencil and commenced to make sharp notes. The trial proceeded, and the Chairman of the Board, in an hour and a half, made one of the most absurd and bombastic of speeches; telling us, amongst other things, what homœopathy was, and what the Society was going to do with us; intimating kindly, at the close of his harangue, that if we would hand in our resignations, they

would be accepted, and we would not be expelled. The homœopaths presented a protest against the authority of the Board, but the protest was not received. They were then informed that if they had anything to say why sentence of expulsion should not be passed on them, they should say it.

Just at that moment there came into the room, a tall, lank man, rather an uncommon-looking man, and the President of the Board said to the Secretary, who had kept his eye upon him, "See that everybody not a member of the Society is kept out of the room," and the Secretary went up to this man, and said, "Are you a member of this Society?" "No, sir, I am not exactly a member, but I came here to see what was going on." "Well, if you are not a member of the Society, you will oblige me by leaving," said the Secretary.

"Well," says the man, "I have a little business to transact with these men." Said one of them, "We will see him in the little room." "Oh, don't disturb yourselves at all, I can see you here just as well." The Secretary said to the President, "This man is not a member of the Society, Mr. President; shall he be put out of the room?" "Certainly," said the President; but one man a little keener than the rest, said, "Mister, what is your name?" "My name is John B. Dearborn, Deputy Sheriff of Somerset County, and I would like to see the man who would put me out of this room; he would find himself in closer quarters in a short time." Then he deliberately took out some papers, and presented them to the different members, and they looked as he put his hand into his pocket, as if they expected to see a sheriff's rope come out of his pocket. It was really a very amusing sight. But to make a long story short, it made the matter ridiculous. First, they thought they would go on; but the papers served on them was an injunction from the Supreme Court, preventing any expulsion in that summary manner. Then they found that this injunction, while it restrained them from exercising any power in that way, did not prevent them from going on with the trial. So they said: "Although we have no power to expel you, gentlemen, as we proposed to do, yet we shall go on and try your case." That afternoon we made a demand for specifications of the charges, which were so vague that

they could not be answered. They agreed to adjourn for the purpose of preparing specifications, and said that, inasmuch as our preparation had not been made, they would not proceed to use their powers until they had ascertained what those powers were. The matter then went to the Supreme Court. In the interim, owing to the enthusiasm of our friends, and the feeling on the part of the public, we took occasion to make an effort for a hospital, in the way of a fair, and let me say, it was one of the grandest of outpourings of men and women from all classes of the community. The earnestness and interest that was manifested in the great cause was tremendous, and I must say that I have never seen such enthusiasm prevail on any other occasion in my experience. You will at once appreciate the amount of work done and the amount of help we had, when you remember the amount realized at that fair. When all the expenses were paid, we had over eighty thousand dollars.

Our case was very ably argued before the Supreme Court, on the making of the injunction perpetual. Now there has been a slight misunderstanding as to the character of the decision of that court. The truth is, they decided nothing. It was a question that struck very deeply into the social relations between the allopathists and the homœopathists throughout the community. The Supreme Court of Massachusetts did not wish to decide anything until compelled to do so; and they therefore took this ground that until something had been done by the Society, they could not pass judgment, and so the injunction was dissolved. Then came the "trial."

Now at that trial, there was not one particle of evidence deduced. I will read to you the demands made upon the Board, and the action of the Board thereon, which will give you a correct idea of how the *trial* was conducted, if such a farce may be so called.

First. We demanded, that the trial should be held with open doors, and the friends of the accused should be allowed to be present.

Demand refused.

Second. That reporters for the press should be allowed to be present; that, as this was a matter affecting the character of the

accused, the public had a right to know the evidence produced, and the manner of conducting this trial.

Demand refused.

Third. That the accused be allowed legal counsel, since it is proposed to dispossess them of rights, privileges, and personal property.

Demand refused.

Fourth. That they be allowed to have an advocate, not a member of the Massachusetts Medical Society, present, to advise them.

Demand refused.

Fifth. That, as they have reason to object to the record of the Secretary, a phonographic reporter of the trial should be appointed by mutual consent, and sworn to the faithful performance of his duty.

Demand refused.

Sixth. That the accused may employ a phonographic reporter.

Demand refused.

Seventh. That an amanuensis, not a member of the Massachusetts Medical Society, be allowed to sit beside the accused and assist them in taking notes of the trial.

Demand refused.

Eighth. The right to peremptory challenge.

Demand refused.

Ninth. The right to challenge members of the board of trial for good and sufficient reasons.

Demand refused.

One of our judges was a man of immoral character, and unfit to sit in any court of trial, and more than that, this very man was in the habit of buying homœopathic globules of sugar of milk, and giving them to his patients, when any of them wanted homœopathic treatment, telling them he knew all about homœopathy. We were prepared to prove this charge. We proved the character of our own Society, and the rights which we had under that Society. We proved that not only action had never been taken to destroy the Massachusetts Medical Society, but that we were not in a position to do it. You can imagine what sort of trial it was, and here is the verdict rendered:

"Having heard the evidence adduced in support of said charges, and heard the said several defendants, all of whom were personally present, and their evidence, averments, and arguments, in answer to said charges and specifications, and the parties having been fully heard, and the evidence and arguments on each side fully considered, we do find and determine that the said charges and specifications are all fully proved against each of the accused persons, and they are severally guilty of the charges aforesaid, and we therefore judge and determine that the said William Bushnell, Milton Fuller, H. L. H. Hoffendahl, George Russel, I. T. Talbot, David Thayer, Benjamin H. West, be therefore expelled from their membership of the Massachusetts Medical Society, and report this our determination to the Massachusetts Medical Society, at its annual meeting, for such action thereupon as to the Society may seem fit."

We have prepared a statement, including all the evidence which was given and the arguments, and I have brought on several copies of them, and shall be very happy to give them to any one during the session. I would say this, however, that the case has now come to the point where, if it is decided to carry it any further before the Supreme Court, they will then decide the legal rights of the homœopathic physicians in the State of Massachusetts.

There is one point more which I wish to explain; it is this: We are not expelled as homœopaths, but it is an attempt on the part of the allopaths to place the stigma of dishonorable conduct upon every one practicing homœopathy. Their rules are, that they must not meet a homœopath in consultation, must not acknowledge him socially or professionally or in any manner, because he is a dishonored man. And it is to fight them on this point, to assert our rights, professional, social, and all others, that we stand out against them, and shall continue to do so.

THE PRESIDENT suggested that a committee be appointed whose duty it should be to name a Committee on Climatology.

DR. E. C. FRANKLIN moved that the Chair appoint a committee of three to nominate a Committee of Climatology, under the resolution introduced by Dr. M. M. Marix.

Agreed to.

THE PRESIDENT then appointed Dr. E. C. Franklin, of St. Louis; Dr. T. F. Allen, of New York; and Dr. M. Meyer Marix, of Denver, Col., said committee.

THE PRESIDENT: The next business in order will be the presentation of the report and papers of the

BUREAU OF SURGERY.

DR. J. H. MCCLELLAND, of Pittsburg, Pa.: Mr. President, I am here in the capacity of acting Chairman of the Bureau of Surgery with great reluctance. But at the special request of my friend, Dr. Bushrod W. James, of Philadelphia, Chairman of the Bureau, who is unavoidably absent, I have consented to take his place, and present the report and papers of our bureau. The subject selected by the bureau for special report was

DISEASES OF BONES AND THEIR MEDICAL AND SURGICAL TREATMENT.

The bureau have in their possession the following papers:

Rachitis; by N. SCHNEIDER, M.D., of Cleveland, O. (Section V, Art. LIV.)

Tumors of Bone, Benign and Malignant; by E. C. FRANKLIN, M.D., of St. Louis. (Section V, Art. LV.)

Suppuration and Abscess of Bone; by M. W. WALLENS, M.D., of Somerville, N. J. (Section V, Art. LVI.)

Caries; by C. P. SEIP, M.D., of Pittsburg, Pa. (Section V, Art. LVII.)

Necrosis; by L. H. WILLARD, M.D., of Alleghany City, Pa. (Section V, Art. LVIII.)

Reproduction and Repair of Bone; by J. H. MCCLELLAND, M.D., of Pittsburg, Pa. (Section V, Art. LIX.)

Therapeutics of Bone Diseases; by J. C. MORGAN, M.D., of Philadelphia. (Section V, Art. LX.)

A case of Strangulated Umbilical Hernia, with removal of six inches of the intestine; by H. F. BIGGAR, M.D., of Cleveland, O.

N. SCHNEIDER, M.D., of Cleveland, then read his paper on *Rachitis*, which was accepted, and referred to the Committee of Publication.

DR. J. G. GILCHRIST asked the author of the paper what remedies he used in the treatment of rachitis.

DR. SCHNEIDER said he used but few remedies, and such as he did use he gave in high potencies.

DR. J. H. MCCLELLAND: The next paper to be presented is that of Dr. E. C. Franklin, on *Tumors of Bone, Benign and Malignant.*

DR. E. C. FRANKLIN: Mr. President and Gentlemen, I am aware, as you all are, that this is an exceedingly trite subject, and when I tell you that the paper I have prepared comprises sixty-three closely written manuscript pages, I do not think that you will be willing to have me read it. The subject is one of great importance, and I have given to it considerable thought, and have endeavored in the preparation of the paper, to present all the material facts, substantially connected with the subject, that lies within the bounds of the profession, both homœopathic and allopathic. I would therefore suggest that this paper be referred to the Committee of Publication.

It was moved and carried that Dr. Franklin's paper be accepted, and referred as he had indicated.

The paper by Dr. M. W. Wallens, of Somerville, N. J., on *Suppuration and Abscess of Bone*, was then read, accepted, and referred to the Committee of Publication.

L. H. WILLARD, M.D., of Alleghany City, Pa.: Mr. President, I object to the first part of Dr. Wallens's paper regarding the treatment of abscess of bone. I would cut down upon an abscess so situated at once upon its being manifested, and allow the pus to have free exit. It is a mistake, in my opinion, to wait two or three days after pus is known to have formed, before taking measures to evacuate it. There are more errors committed by waiting than by being too prompt to use the knife. It is bad surgery to wait until suppuration goes on to involve considerable bony structure; and although in young subjects in good condition, re-formation of the bone will occur, still it is best

to have as little to be re-formed as possible, by arresting the disease by a free incision.

DR. J. G. GILCHRIST: If the incision be made and the pus discharged, that does not cure the disease of the bone, which remains the same as before the pus was discharged. We must give medicines to cure the disease.

DR. WILLARD: Discharging the pus is only one of the means of cure, the primary step. If you do not cut down to the pus and discharge it, we all know what will happen. This step is imperatively demanded as a first step, and you may use homœopathic medicines afterward. The pus is a foreign body which must be got rid of, or it will work worse mischief. I think the author of this paper, Dr. Wallens, does not make this important point sufficiently strong. The balance of his paper I fully agree with.

DR. GEORGE A. HALL, of Chicago, Ill.: The efforts of nature in these cases are certainly curative, and we should learn to recognize them as such. If pus is formed it must be got rid of in some way, and nature will eliminate the foreign material if allowed to do so unassisted; but it is not best to allow nature to do this work unassisted for fear she destroys tissue that would otherwise be undisturbed. I am certainly in favor of the use of the knife in these cases. And yet I am of the opinion, also, that the use of remedies homœopathically applied, in accordance with the presenting symptoms, is greatly underrated. I think my friend Dr. Schneider made a mistake in preparing his paper on rachitis without special indications for the use of remedies. It seems to me that it is to hear such reports that we come together in such societies as this; to hear about the practical workings of homœopathy. I am satisfied of the efficacy of homœopathic medicines in the treatment of diseases of the bones and the joints. I did not come here to give a detail of cases under my personal treatment, or I might relate many cases in point. One that I remember well was that of a little girl seven years old, who had hip-joint disease, which was perfectly cured by means of Sulphur, which was given on account of its correspondence with the child's general conditions and with her symptoms.

DR. GILCHRIST: I wish to make a single remark that I may

not be misunderstood. I believe that Drs. McClelland and Willard are perfectly competent to give us the remedies suitable in these cases of abscess of bone and their indications, and I should like them to do so. I am convinced of the efficiency of homœopathic medication in these cases as in all others. I believe that homœopathy can cure everything, or it can cure nothing. I fail to see any curative indications in the use of the knife; the cure must be made by our remedies.

DR. E. C. FRANKLIN: I would ask my friend Dr. Gilchrist if he thinks homœopathy can cure an incurable disease?

DR. GILCHRIST: I do not believe in incurable diseases.

DR. FRANKLIN: Do you think that scirrhus and tuberculosis are curable?

DR. GILCHRIST: Yes, sir; I think they are.

DR. FRANKLIN: Can any one cure them?

DR. GILCHRIST: I think so.

DR. FRANKLIN: I should like to see one case of tuberculosis of the lungs, genuine tuberculosis, cured, and I should like to know by what remedy it was effected.

THE PRESIDENT: I call the gentlemen to order. The question before the Institute is suppuration and abscess of bone.

C. H. VON TAGEN, M.D., of Cleveland, O.: The gentlemen who have spoken seem to be agreed that homœopathic medicines are the curative means to be employed, while the knife is a necessary adjuvant. I do not imagine that Dr. Willard wished to convey the idea, that having discharged the pus by a free incision he would then pause and allow nature to work her ends unassisted; I am sure he would prescribe suitable remedies. In the treatment of felon I have frequently known, in my own experience, that, at the commencement of that apparently insignificant but painful affection, a free incision, discharging nothing but blood, or it may be a drop of pus, would put a stop to the progress of the disease, and a cure would result. Had this been allowed to go on the whole finger might have been involved, and perhaps destroyed. I have heard of these felons being cured by homœopathic remedies in the hands of other physicians, but for myself, I have never been able to arrest or cure a single case that

had a good fair start by remedies alone, or without the use of the knife.

DR. J. P. DAKE: I think it is very important for us in writing or speaking about what homœopathy can and cannot do to be very careful what assertions we make. We may bring reproach upon our school by heedless talk, and excite prejudice against us.

PEMBERTON DUDLEY, M.D., of Philadelphia: In reference to the questions pertaining to the treatment of abscess, whether of the bones or soft parts, there are certain principles that prevail that must define our treatment, if we feel bound to insist upon that treatment as purely scientific. We cannot be dogmatic in matters of this kind. We may lay down facts if we please, but we cannot lay down principles without giving reasons therefor. In the case of an abscess, where matter has formed, there is probably not one physician in this body who is not of the opinion that the matter must be got rid of before a cure can take place. I doubt, however, if there be a homœopathic physician who seriously considers the possibility of having the pus of a psoas abscess absorbed.

I have given and still give medicines to promote suppuration, Hepar and Silicia and Mercurius, as other physicians do, but I doubt, Mr. President, whether the action of these medicines is homœopathic. The homœopathic law of cure is expressed in the formula, likes are cured by likes. Now, when I am promoting suppuration by giving Hepar, I am promoting disease, and not curing it; I am hastening the process, not curing it; and my medicine is not acting on the homœopathic principle. Some of you may have read a paper prepared by myself on "Homœopathy Misapplied." I am simply repeating the doctrines set forth in that paper. These are problems which I wish this Institute would solve.

On motion of Dr. S. R. Beckwith, the Institute then adjourned, to meet on Thursday morning at 9½ o'clock.

THIRD DAY.

MORNING SESSION.

The Institute was called to order at 9½ o'clock, by the President.

BUREAU OF SURGERY.

(Continued.)

THE PRESIDENT: At the time of adjournment yesterday afternoon, a paper on Suppuration and Abscess of Bone was under discussion. Are there any further remarks to be made on that subject?

DR. WILLIAM OWENS, of Cincinnati: I purpose offering a few remarks, for the purpose of eliciting further information on this important subject, if possible. I take it that we came together for the purpose of gaining knowledge. Yesterday we listened to a paper on Rachitis, and from that we got no special etiology; and to another paper on Suppuration and Abscess in Bone, without etiology, and with no very extended pathological views. In fact, we have heard nothing in the reading of these two papers beyond what we may gather from the everyday text-books. We, or at least I, have expected something better from the gentlemen composing the Bureau of Surgery, especially as we know that these gentlemen are perfectly competent to give us all the information on these subjects we may desire. I should be glad to have heard something regarding the treatment of the class of diseases of the bones embraced in Dr. Schneider's paper. [Dr. Owens then related several very interesting cases of disease and injury of bones, but his remarks were not heard with sufficient distinctness by the stenographer to admit of their being transcribed.—GEN. SEC.] I am of the opinion that sufficient stress has not been put upon the hygienic and medicinal treatment of the diseases referred to in the papers which have been read.

DR. J. J. YOULIN moved that members be limited to five minutes' time in speaking to papers, unless consent be obtained for an extension.

Agreed to.

DR. L. H. WILLARD, of Alleghany City, Pa., then read his paper on *Necrosis*.

DR. S. R. BECKWITH, of Cincinnati, O.: I wish to thank Dr. Willard for his paper, which I think is a very able production. There is one point, however, on which I want more light. He relates a case in which he removed at least three-fourths of the tibia, and states that the bone was reproduced by deposit from the soft tissues, uniting with the remaining portions of the tibia, and forming together a sound and healthy bone. If this be a fact, it is a very important one, and it is certainly a new theory of the re-formation of bone. I trust the Doctor will so add to his paper as to bring out this point more clearly.

DR. DAVID COWLEY, of Pittsburg, Pa.: I can assure you that Dr. Willard has not overstated the case.

DR. S. R. BECKWITH: I do not imagine he overstated the case. What I want to arrive at is, the *modus operandi* of this restoration of a great portion of the tibia.

DR. COWLEY: All that we can say is, that a substance formed in the space from which the diseased portion of the tibia had been taken, which went on increasing in density and hardness until it became as it were solid bone.

DR. WILLARD: I can do no more than state the facts as they occurred. I cannot explain the rationale of the process, for I do not profess to understand it myself.

DR. S. R. BECKWITH: Did you not examine the parts at different times, and detect points of ossification?

DR. WILLARD: Yes, we first detected an elastic substance, somewhat like cartilage, soft and rather pliable. This gradually hardened, until finally, about three months afterwards, we could detect the hard bony formation. The tibia is now as strong as that of the man's sound limb, and of the same length.

DR. E. C. FRANKLIN: This is certainly a very interesting subject, and one which comes home to all surgeons. The older writers taught that the osteogenetic power belonged to the periosteum. Since then we have been taught that the bone itself, or the cellular texture of the bone, possesses the power of reproduction. It is certainly a very interesting question in this case to

know how this new bone was produced. The periosteum, I understand, was so disorganized or diseased as to have lost its osteogenetic property, and there was no bone-substance competent to produce its kind. Whence, then, did the new bone come from? The books will furnish us no light on this point.

There is another point on which I wish to say a few words. Dr. Willard refers to Calendula. I am surprised at the free use, under all circumstances, made of this article. I wish now to give you my own experience in this matter. The results of my observations have been to prove to me that Calendula has no influence whatever over inflammation *per se;* but when inflammation has gone on to the disintegration and breaking up of either the soft or hard parts, Calendula is the most useful of all known remedies. On the contrary, Staphisagria is suited to inflammatory action, especially when bony tissue is involved. I always use a lotion of Calendula for suppurative processes, and it always gives good results. I have used Calendula for cuts, but am of the opinion that the healing process is in no way indebted to its action, as I have had just as good results follow the application of simple water-dressings in many similar cases. I use Staphisagria in almost all cases where Calendula is recommended in the books.

DR. WILLARD: When we cut down upon a diseased bone, we generally find the periosteum loosened and separated. In the case reported, we made no effort to take the periosteum away, and it is possible that it remained in the cavity. All I can say is that we did not see it. We did not wish to disturb any of the tissues more than seemed to be necessary, but simply to approximate the parts by means of sutures, and apply Calendula. We have found in our hospital practice that Calendula not only assists the process of healing, but acts as a disinfectant, and therefore we use it freely.

DR. S. R. BECKWITH: I stirred in this matter principally because I had a case somewhat similar some years ago, which I have never reported. I think it almost impossible that the periosteum was taken away in the case reported by my friend Dr. Willard. In my own case I removed the half of the inferior maxillary bone, and it was in time reproduced completely, teeth

and all. The subject of this operation, now a young man, twenty-seven years old, is now in this city and can be examined in corroboration of what I have asserted.

N. SCHNEIDER, M.D., of Cleveland, Ohio: It seems to me that the point raised is not a new one after all, but is simply one that has not been properly explained or understood. We know that in the case of diseased bone, nature always attempts to repair the damage done by disease, and the material for repair is thrown out, by the bone, by the periosteum, and by the surrounding soft tissues, a plastic material. Now this plastic material can never become ossific tissue unless bone-cells be thrown into it, and form a component part of it; and this is what does take place; bone-cells are thrown out, not by the periosteum or the soft parts, but by the bone tissue itself, and in this case from the ends of the bone, and in course of time new bone material is formed.

E. C. BECKWITH, M.D., of Zanesville, Ohio: I had a case in which new bone was formed, and yet the crude mercury which the patient had taken, and which in all probability led to the disease which destroyed the bony tissue, could be found in globules as large as the head of a pin in the new bone.

H. F. BIGGAR, M.D., of Cleveland, Ohio: I heartily indorse the remarks of Dr. Willard in regard of the use of Calendula. I have never found a remedy to do more valuable service. I once removed a portion of the tibia, and a second operation was demanded, the first having been not sufficiently extensive. In this case I was enabled to note the gradual process of regeneration which took place; the first deposit was thin and delicate in character and of a pinkish hue. This afterward became cartilaginoid, and subsequently ossific in its character. I think the explanation given by my friend Dr. Schneider satisfactorily accounts for the process of regeneration of bone which took place in the case related by Dr. Willard.

J. D. BUCK, M.D., Cincinnati, Ohio: I wish simply to call attention to one point in reference to the histological proposition now under consideration, as to the origin of these bone-cells. The statement was made by one gentleman, and that too without qualification, that the bone-cells originated from the ends of the

bone. In histology, at present, the production of bone is an unsettled point. No one doubts the reappearance of bone-cells in these cases; but as to whether they proceed from the bone-texture, or by cell division, or whether by a proliferation of the lymph-corpuscles, or whether thrown out by the circulatory apparatus, are points in dispute, and there are advocates for all these propositions. In all the cases observed, the transition is from lymph-corpuscle to cartilage-corpuscle and to bone-cell. There are great diversities of opinion on these points.

DR. G. M. PEASE, of Boston, Mass.: I wish to corroborate the statement as to the reproduction of bone after portions of a bone have been removed. While I was in the army, a captain of one of the regiments on duty in North Carolina was wounded about the middle of the shaft of the humerus by an explosive bullet. The bone was so considerably shattered as to render it almost impossible to do anything in the way of saving it, and almost to necessitate amputation. But, thinking that I could make the arm of some use to the man, below the elbow at least, I excised the middle third of the humerus. Afterwards I found that where there was at first only the remaining muscles, a harder substance was being developed. At first he could bend the arm at the point of operation, but gradually it stiffened up so that he could not do this; and finally it became a perfect arm so far as use and appearance went, and gave every evidence of the formation of new bone. I have seen this man within a year, and he then had perfect use of the injured arm.

DR. E. C. FRANKLIN: These statements are all very interesting, and they mark out a further advance in the pathology and histology of bone. It is well known that the bone denuded of its periosteum does not necessarily become necrosed, but may be and often is re-covered with a new periosteum. This is especially the case in young subjects. The denuded portion retains intimate vascular connection with the medullary tissue. Medullary tissue when transplanted has been known to produce bone. [Dr. Franklin then read at length from his paper on *Tumors of Bone, Benign and Malignant*, to show the importance of the vascular structure of bones, and especially of the nutrient artery.]

DR. J. P. DAKE: The bureau announced a paper on the Reproduction and Repair of Bone.

DR. J. H. MCCLELLAND: The next paper the bureau will present is on *Caries*, by C. P. Seip, M.D., of Pittsburg, Pa. It is a very interesting and exhaustive paper, gotten up with great care, and exhibiting a great deal of research. We wish to have it referred to the Committee of Publication without having it read.

Dr. Seip's paper was accepted and referred.

The paper by Dr. John C. Morgan, of Philadelphia, on the *Therapeutics of Bone Diseases*, was read by title, accepted, and referred to the Committee of Publication.

DR. J. H. MCCLELLAND: The last paper of the series is by myself. I cannot read it to you in full, nor have I any desire to do so, in view of the length of time already consumed by our bureau. It is on the *Reproduction and Repair of Bone*. Dr. Schneider has expressed far better than I can the views which I believe to be correct as to the reproduction of bone. I do not believe that the periosteum is the sole mother of bone, and have reason to believe that bone is reproduced where there is no periosteum. I think we have all seen evidences of that time after time. I will report a case in point very briefly. It is one in which the inferior maxillary bone was destroyed by a gunshot wound, and the bone was so comminuted and the adjacent tissues so injured, that nothing could be done save take away the fragments piecemeal from the symphysis nearly to the articulation, the articulation itself remaining, along with the pieces of periosteum. There may have been some fragments of periosteum left adherent to the tissues, but the main portion of it was taken away. The portion of bone removed has been reproduced, first by cartilaginoid formation, and then by ossific tissue.

Dr. McClelland's paper was accepted, and referred to the Committee of Publication.

HAMILTON F. BIGGAR, M.D., of Cleveland, O.: So much time has been taken up in the discussion of the subject, Mr. President, that I will be very brief in my remarks. I have a woman here, a German, upon whom I operated for the relief of strangulated umbilical hernia, removing a considerable portion

of the intestine, and leaving an artificial anus. The patient will be introduced presently, when you will have an opportunity of examining the opening through the abdominal wall; and I here show you the portion of intestine removed. I will write out an account of the case and of the operation in full, and furnish it to the General Secretary. [The report of this very interesting case has not been received up to the time of going to press.—GEN. SEC.]

On motion, the Bureau of Surgery was declared closed.

THE PRESIDENT: Dr. Duncan, of Chicago, has received a telegram which calls him home at once. He wishes, however, to offer a resolution before he goes.

It was moved and carried that Dr. Duncan be allowed to offer his resolution.

DR. T. C. DUNCAN: The subject of this resolution properly comes under the head of miscellaneous business; but as I have word that my father-in-law is very ill, I must return to Chicago at once, and hence with your permission propose to offer it now. It is as follows:

WHEREAS, A considerable proportion of our patients are infants and children; and

WHEREAS, A large number of the institutions for children in the United States are under homœopathic care; therefore,

Resolved, That the following amendment be added to Article X of the By-Laws:

SEC. 8. There shall be a Bureau of Pædology, consisting of at least five members, who shall collect and report to the Institute facts and observations on this branch of medicine.

On motion, the preamble and resolution were referred to the Bureau of Organization, Registration, and Statistics, with instructions to report thereon during the present session.

DR. E. C. FRANKLIN asked for and received permission to present a report of a case at any time during the session, as part of the report of the Bureau of Surgery, provided certain photographs which he expected by mail should arrive in time.

THE PRESIDENT announced that the Bureau of Surgery would be constituted as follows for the ensuing year:

Bureau of Surgery for 1874.

E. C. FRANKLIN, M.D., *Chairman*, ...	St. Louis, Mo.
N. SCHNEIDER, M.D., ...	Cleveland, O.
L. PRATT, M.D., ...	Wheaton, Ill.
W. T. HELMUTH, M.D., ...	New York.
L. H. WILLARD, M.D., ...	Pittsburg, Pa.
H. F. BIGGAR, M.D., ...	Cleveland, O.
J. H. McCLELLAND, M.D., ...	Pittsburg, Pa.
MALCOLM MACFARLAN, M.D., ...	Philadelphia.
GILES M. PEASE, M.D., ...	San Francisco.
S. R. BECKWITH, M.D., ...	Cincinnati.
J. G. GILCHRIST, M.D., ...	Tidioute, Pa.
M. W. WALLENS, M.D., ...	Somerville, N. J.

THE PRESIDENT: The next business in order is the presentation of the report and papers of the

BUREAU OF OPHTHALMOLOGY AND OTOLOGY.

T. P. WILSON, M.D., of Cincinnati, O., Chairman of the Bureau, said: It is with much diffidence I come before you, after what I have witnessed on the part of the various bureaus which have preceded the one I represent. The gleanings of the past year have been few. I must congratulate the profession, however, on the very rapid advances made of late in ophthalmology and otology. It is within the recollection of the youngest member in this house, no doubt, that there was a time not very far removed, when there was not a single physician of our school who pretended to make the treatment of diseases of the eye and ear a specialty in any sort of way. These diseases were almost entirely given over to the specialists who belonged to the old school. But to-day we have in New York City a noble institution devoted to the work, one of the grandest in the land, and in the hands of noble men, who are doing their work bravely and well; in Boston, considerable is being done by Dr. Angell and others in the same direction; in Philadelphia, Dr. Macfarlan is doing a very considerable amount of business in diseases of the eye and ear; in Pittsburg, at the homœopathic hospital; there they have a very respectable eye and ear clinic; in Cleveland, with Dr. Von Tagen at the head of the department, an excellent and promising beginning has been made; and Dr. Woodyatt, in

Chicago, and Dr. Breyfogle, in Louisville, and myself at Cincinnati, are trying to do what we can to successfully treat diseases of these important organs. The bureau is young, but we hope in time to range ourselves alongside the most important bureau of the Institute.

The papers I have to present are as follows:

Clinical Cases in Ophthalmology; by C. H. VON TAGEN, M.D., of Cleveland, O. (Section IX, Art. VII.)

An Account of Thirty-five Operations for Cataract; by MALCOLM MACFARLAN, M.D., of Philadelphia. (Section IX, Art. V.)

On the Use of Spectacles; by T. P. WILSON, M.D., of Cincinnati, O. (Section IX, Art. VI.)

Asthenopia; by T. P. WILSON, M.D. (Section IX, Art. IV.)

DR. C. H. VON TAGEN read his paper entitled *Clinical Cases in Ophthalmology*, which was accepted and referred to the Committee of Publication.

DR. T. P. WILSON then read his paper on *Asthenopia*, which was likewise accepted and referred.

The remaining papers of the bureau were read by title and referred to the Committee of Publication.

DR. T. P. WILSON: Before we close our bureau I wish to show you *An Improved Apparatus for Syringing the Ear*. It is not always an easy matter to syringe the ear, and I have known disastrous results to follow the operation, such as injury to the tympanic membrane. I fear that many physicians, even among those who are intelligent and well informed on most medical subjects, have no idea of the nature of the tympanic structure, or how easily it may be injured, or even rendered useless. They do not seem to know that impacted cerumen pressing on the membrana tympani may occasion a great variety of disturbances of the system, and even result in complete deafness. Ordinary works on otology show us a common syringe to be used for cleansing the ear, the water from which, being forced into the ear, comes spirting out over the patient, and making the simple operation a very unpleasant one. Now with the instrument I here show you a uniform and constant stream can be thrown into the ear, and the hardened cerumen broken up and washed away. [Dr. Wilson has furnished no description or cut of this instrument.—GEN. SEC.]

On motion, the bureau was declared closed.

THE PRESIDENT announced that the Bureau of Ophthalmology and Otology would be constituted as follows for the ensuing year:

Bureau of Ophthalmology and Otology for 1874.

M. MACFARLAN, M.D., *Chairman*,	Philadelphia.
T. P. WILSON, M.D.,	Cincinnati.
H. C. HOUGHTON, M.D.,	New York.
C. H. VON TAGEN, M.D.,	Cleveland, O.
W. L. BREYFOGLE, M.D.,	Louisville, Ky.
W. H. WOODYATT, M.D.,	Chicago.

DR. T. P. WILSON: Mr. President, I understand that there has been some distinction in regard to the manner of reference of reports and papers presented to the Institute. For instance, the papers of the various bureaus as they have been presented and read, have been accepted and referred to the Committee of Publication, that committee having very properly the power of discriminating between those that ought and those that ought not to be published, while a verbal statement made by one of the members of the Institute was, on motion, to be written out at length, and, with certain illustrations, to be published by the Secretary, who was left without any discretionary power such as belongs to him as a member of the Committee of Publication. This, sir, is certainly not right, and especially if it be true, as is alleged, that the remarks made by the member referred to and ordered to be published by the Institute, are already extensively in type in various places. I move, therefore, that the motion, as made by Dr. E. C. Franklin, directing the Secretary to publish the paper to be furnished with plates, by Dr. R. R. Gregg, be rescinded; and that that paper, if it be prepared, be referred to the Committee of Publication, which is the usual course.

Agreed to.

DR. I. T. TALBOT offered the following resolution:

Resolved, That no cases or papers previously published shall be received by the Institute, or published in its Transactions.

DR. G. W. SWAZEY moved to amend by striking out all after

the word *resolved*, and inserting in its stead the following: "That it is an impropriety and an offence to the members of the American Institute of Homœopathy for any member, during its sessions, to claim its attention by a recital of cases, or reading of papers already published, thus taking up the time of the Institute by the presentation of matter already accessible in our current literature, unless specially invited to do so."

The vote being taken on the amendment of Dr. Swazey, it was not agreed to. Whereupon the question recurring on the original motion of Dr. Talbot, it was unanimously agreed to.

DR. T. F. SMITH, of New York, moved that the first business in order of the afternoon session should be the selection of the time and place for the next meeting of the Institute.

Agreed to.

The Institute then adjourned, to meet at 2½ o'clock in the afternoon.

AFTERNOON SESSION.

The Institute was called to order at 2½ o'clock by the President.

THE PRESIDENT: The first business in order will be the selection of time and place for the next meeting of the Institute.

DR. S. LILIENTHAL: At the request of the physicians of New York, I extend a most cordial invitation to the Institute to meet next year in New York City.

THE SECRETARY presented an invitation from the physicians of Minnesota for the Institute to meet next year in St. Paul or Minneapolis.

DR. T. L. BROWN, of Binghamton, N. Y., moved that the next meeting of the Institute be held at Niagara Falls, N. Y. He said that a number of the members had expressed themselves as in favor of the plan.

DR. G. H. WILSON, of West Meriden, Conn., seconded the motion. He thought Niagara Falls would be a most agreeable place for the meeting. In the early part of June the large hotels will be in good order, he said, and yet there would be but few visitors. The Institute might get possession of one of these hotels, the International, for example, and hold its meetings in one of

the large rooms. It would do away with the necessity which has seemed to exist heretofore, for the physicians of the place where meetings of the Institute are held, to give entertainments to the members.

A number of other members spoke in favor of holding the Annual Session of 1874 at Niagara Falls, and the motion was then agreed to.

It was moved and carried that the meeting be held in June, commencing on the first Tuesday, and continuing four days.

DR. J. J. YOULIN, of Jersey City, N. J., moved that the Executive Committee of the Institute and the members of the Institute residing at Buffalo, N. Y., constitute the Committee of Arrangements for the next meeting, with power to add to their number.

Agreed to.

DR. S. LILIENTHAL: Mr. President, the Bureau of Anatomy, Physiology, and Hygiene, which is one of the most important of the bureaus, is always crowded to the wall by the other bureaus taking up so much of the time with their reports and discussions. I move, therefore, that this Bureau shall make its report first at the next session of the Institute.

DR. T. P. WILSON: I move as a substitute for Dr. Lilienthal's motion, that the General Secretary is hereby instructed to hereafter rotate the bureaus in the order of business from session to session.

DR. LILIENTHAL accepted the substitute in lieu of the original motion, and it was then agreed to.

DR. LILIENTHAL moved that a bureau failing to finish its business on the day allotted to it, shall not be allowed to go over into another day.

DR. J. P. DAKE: I trust this motion will not prevail. I think we should be privileged to act with judgment about extending the time of a bureau. If we come to a paper which is very important, and requires and receives much discussion, it would not be wise for us to close up that bureau simply because the day allotted to it had expired.

DR. LILIENTHAL: The day can be prolonged as much as you please. What I object to is that a bureau set down for one day

carries its work over into a second day, and thereby shortens the time allotted to all the succeeding bureaus.

The motion was not agreed to.

DR. E. C. FRANKLIN, chairman of the committee to nominate a

COMMITTEE ON CLIMATOLOGY,

reported the following persons as having been agreed upon by the committee as suitable:

M. MAYER MARIX, M.D., *Chairman*,	Denver, Col.
WILLIAM E. PAYNE, M.D.,	Bath, Me.
W. H. HOLCOMBE, M.D.,	New Orleans.
J. G. GILCHRIST, M.D.,	Tidioute, Pa.
A. R. WRIGHT, M.D.,	Buffalo, N. Y.
T. C. DUNCAN, M.D.,	Chicago, Ill.
W. H. LEONARD, M.D.,	Minneapolis, Minn.
F. HILLER, M.D.,	San Francisco.

On motion, the report was accepted, and the committee discharged.

The nominations made by the committee were then, on motion, confirmed by the Institute.

DR. E. C. FRANKLIN said the Bureau of Surgery had selected the subject of Fractures for their next report, and that they wished to do the work thoroughly. To effect this they wished to have an increased force on the bureau, and he therefore moved to amend Section 4 of Article X of the By-Laws, by adding the words "or more" after the word "nine," so that the section would read: "There shall be a Bureau of Surgery, consisting of nine or more members," &c. He asked for the co-operation of every member of the Institute, that the bureau might be enabled to present an exhaustive treatise on fractures in 1874, which they intended to illustrate with appropriate cuts.

DR. I. T. TALBOT said that the President might add such additional names to the bureau as the bureau would suggest, as had been done before.

The motion of Dr. Franklin to amend the by-laws was agreed to.

J. D. BUCK, M.D., then presented the report and papers of the

BUREAU OF ANATOMY, PHYSIOLOGY, AND HYGIENE.

He stated that the chairman of the bureau, Dr. A. R. Thomas, of Philadelphia, was absent, but had sent on his paper on the subject of Diet; the subject selected by the bureau for its general report. He had the following papers in his possession:

Diet for the Sick; by A. R. THOMAS, M.D., of Philadelphia. (Section VII, Art. XVIII.)

Diet of Infants and Young Children; by JOHN C. MORGAN, M.D., of Philadelphia. (Section VII, Art. XIX.)

The Hygiene of Infants; by EMMA SCOTT, M.D., of New York.

The Nervous System; by J. D. BUCK, M.D., of Cincinnati, O. (Section VII, Art. XX.)

THE DIET AND WASHING OF INFANTS.

DR. BUCK read the paper by Dr. A. R. Thomas, on *Diet for the Sick*, and the paper by Dr. J. C. Morgan, on *Diet of Infants and Young Children*, by synopsis. They were then accepted, and referred to the Committee of Publication.

EMMA SCOTT, M.D., of New York, read her paper on *The Hygiene of Infants*, which was likewise accepted, and appropriately referred.

SARA B. CHASE, M.D., of Brownhelm, O., said she had been in the habit, for some time, of not having infants washed on the day of their birth; but she had them anointed with lard, and rubbed clean with cloths. In this way she avoided what she regarded as a great shock to the infant, which was undergoing a sufficiently severe ordeal in coming as it did from a temperature of about 99° into the atmosphere of the lying-in chamber, which was considerably below that point, without being washed, even with hot water, and exposed to the cooling process of evaporation. On the second day she has the child washed carefully, then omits the washing one day, and has it repeated on the fourth day; after which she directs that the child be washed

and bathed daily. She was of the opinion that she had witnessed deleterious effects upon the vitality of the infant from too frequent washing.

WILLIAM VON GOTTSCHALK, M.D., of Providence, R. I.: In regard to the matter of washing or bathing babies on the day of their birth, I saw a woman in Paris, who had had sixty years' experience with infants, and had handled about sixteen thousand babies. She always washed them on the day of birth, and daily thereafter, and had known of no harm coming from the practice.

In regard to the diet of infants who are brought up by the bottle or by hand: From 1850 until 1854, I attended the Northwestern Dispensary of New York, as advisory physician, and while in that position I came into contact with very many children amongst the lowest classes of the city, and one of the greatest troubles I ever had was to find food suited to these miserable little ones. I gave them the best milk I could get, but even at that time there was little else to be had for them but "swill milk," watered by the milkmen, so that you can imagine the babies did not thrive under such a dietary. I, however, prefer good cow's milk when I can get it, properly diluted with water, a little sugar added, or better still, sugar of milk, and a little salt if the casein tends to coagulate.

DR. WILLIAM OWENS, Cincinnati, O.: There is nothing gives physicians more trouble than the diet of infants, because it is such a difficult matter to get for a child brought up in whole or in part by hand, food of such a character as to be easily digested and assimilated. Arrowroot, which is much used, is unnutritious and indigestible, and passes from the bowels pretty much as it is taken into the stomach. Milk is objectionable for the same reason, in many instances, passing through the bowels in an undigested state, no matter how pure it may be, or whether you give it boiled or unboiled. A child fed in this way certainly is not nourished, but wastes away and is said to have marasmus; and the undigested food passing through the stomach and bowels, may be the means of lighting up disease there. It is a great point to get for these infants food which is easily digestible and assimilable. I think I have found such an article of diet in Graham flour, made into a thin gruel, thin

enough to be drawn by the child from a bottle. It is prepared by boiling, say a handful of the flour in a quart of water, for about forty minutes, straining and slightly sweetening it. I have raised a number of infants on this food, and they have not suffered from summer complaint, or other forms of disease arising from indigestion. If there be much irritability of the bowels, with tendency to relaxation or diarrhœa, I sometimes order the toasted aerated bread, such as we get in Cincinnati, to be boiled for forty minutes, made into a thin gruel, and sweetened. This acts very nicely in such cases. I have not hesitated to have children weaned at an early age when I thought the milk of the mother disagreed, and since resorting to these gruels and abandoning milk almost entirely, I have had little or no trouble from indigestion, summer complaint, and diseases of that character.

DR. J. P. DAKE: I look upon the subject of food for infants as one of the most important questions that can engage the attention of this body. I have paid strict attention to the subject, and have often been brought into conflict with mothers and grandmothers on the subject of milk. I have repeatedly known children to suffer day by day from indigestion, colic, and even convulsions, because of the opposition on the part of mothers and especially of grandmothers, to having the child taken from the breast. And they will persist in having their own way about it, even though the milk is thrown from the stomach and passed through the bowels in great masses of tough, hard, undigested curd. I have always insisted, in such cases, on having the child weaned, and substituting for the breast-milk of the mother some form of nutritious and easily digestible food. I do not favor bread-victuals, nor barley nor rice, because, in my opinion, they are not readily digested, and I prefer to sweeten with sugar of milk. I am much pleased with Dr. Scott's paper.

DR. D. E. HOLT, of Lowell, Mass.: I agree substantially with the views advanced by Dr. Scott in regard of the ordinary food for infants. I believe it is generally admitted that milk contains all the elements of nutrition required by the infant, and is better calculated to build it up than any other article of food; and yet, as Dr. Dake has remarked, there are many cases where

it should not be allowed. When the stomach and bowels become irritable, as they sometimes do in summer-time, I make it a rule to cut off the milk for a time, attack the disordered state with the appropriate homœopathic medicines, giving light and nutritious food in the meantime, and when the digestive apparatus is in good condition, returning to the milk.

DR. GEORGE W. SWAZEY: I am thankful for the suggestions that have been made, and in return will give some of my own views. My rule has been for some years past, to discourage the use of cow's milk. I usually order a gruel made of rice flour, with gelatin added, and the whole made thin enough to be taken from the bottle. The mothers usually prepare the gelatin in sufficient quantity to last for several days, keeping it in a refrigerator. It is of the consistence of jelly, and is mixed with the rice gruel as it is wanted. This food seems to agree well with infants, and they thrive nicely on it. I could relate numerous cases where infants were fed on gelatin almost exclusively, and did well. I am opposed to the use of animal food for babies.

DR. LILIENTHAL: I am of the opinion that the breast-milk of the mother is the most suitable and most nutritious food for babies. This trouble about feeding babies arises almost exclusively from the bad quality of the maternal milk. Let us go to the root of the matter for a remedy. Let us educate our daughters to become healthy women and healthy mothers, and we will do away with all this trouble about finding proper food for infants, as it will be found ready to our hand in the milk of the mothers.

W. H. HUNT, M.D., of Covington, Ky.: There is one article of infant's food I have been in the habit of using, which I have not heard mentioned. I take an egg and beat it up in a glass of water, sweetening it and adding a little glycerin. I have given this with advantage to children suffering from diarrhœa, dysentery, typhoid fever, or diseases of the lungs. I have also given it to infants not sick, as a regular article of diet, during the past five years, with very favorable results.

C. D. FAIRBANKS, M.D., Chicago, Ill.: I have had cases where there was sour stomach persistently, and which could not be relieved by medicine nor by any other means, until the milk

upon which the child fed was withdrawn, and other food substituted. I agree with Dr. Von Gottschalk's views in regard to washing babies, and have never seen any harmful results where the washing was carefully done.

DR. F. R. MCMANUS, of Baltimore, Md.: I think we will find it to be the case with babies' food as it is with most other things,—there is nothing of universal applicability. The diet of infants must be regulated according to the presenting circumstances of each case. Where the child is disposed to diarrhœa, I am in the habit of giving the preparation of rice flour, recommended by Dr. Swazey. When constipatien exists, on the contrary, I make a bran-broth—a teacupful of bran boiled in a quart of water, with milk added if it be deemed advisable. When this does not relieve the constipation, I give a dose of the third decimal trituration of Sulphur, and if that does not relieve the child within twenty-four hours I give a second dose, which always accomplishes the desired result. I remember the case of a lady who was always thrown into violent convulsions upon taking even a small quantity of milk; and whenever I see children who are fed on milk lying in convulsions, I always think of this case, and feel as if the infantile spasms might be due to some such idiosyncrasy as showed itself in this lady.

DR. CLEMENT PEARSON, of Cleveland, O.: I can highly recommend sweet whey—the whey separated from the curd by rennet—and know of nothing equal to it for correcting infantile indigestion. Another favorite article of diet with me is boiled flour, the flour being boiled into a hard lump while tied in a cloth, and afterwards shaved down or grated, and made into victuals. I remember having had a child under my care some time ago who was affected by milk much in the manner of the lady whose case was described by Dr. McManus. I prefer when giving cow's milk to babies to give it warm from the cow.

DR. JAMES B. OWENS, of Lebanon, O.: You may smile at what I am going to say, but I can assure you that, in my experience, when a child is rapidly running down in health, and becomes emaciated, with loss of appetite and general indigestion, and medicines appear to afford no benefit whatever, a nice sweet piece of pickled pork, boiled thoroughly until very soft, and

minced and given in very small pieces at a time, will be found to be taken by the babe with eagerness, and will prove an excellent article of food, so much so that it will soon begin to improve in every respect.

DR. R. LUDLAM: A friend of mine, who has had a very large experience in the management of babies, is in the habit of ordering oatmeal gruel, boiled four hours, with the addition of a small quantity of sweet milk or of condensed milk. She claims for it that it is very nutritious and easily digestible. In regard to the egg dissolved in water, mentioned by Dr. Hunt, it must be remembered that the albumen will not dissolve in the water unless a little salt be added. I have some degree of confidence in the Graham flour recommended by Dr. Owens, and in the boiled flour recommended by Dr. Pearson. I have also used wheat flour, boiled for three-quarters of an hour and then strained through a cloth, and fed to the babe out of a cup or with a spoon. I am of the opinion that salt should be given to babies very sparingly. In regard to the use of pickled pork I can say nothing, as I have had no experience with it as food for infants. I have used in some cases boiled carrots. Cow's milk should, if possible, be taken from a selected cow, and I am clearly of the opinion that it is best given warm from the animal. A physician of my acquaintance is in the habit of prescribing small doses of pepsin, two or three times a day, for the indigestion of infants. The truth is, to sum up the matter, we must change the infantile food to suit individual tastes, individual cases, and individual capabilities of digestion.

DR. J. D. BUCK, of Cincinnati, O., then read his paper on *The Nervous System* by synopsis.

On motion, the papers of the bureau were accepted and referred to the Committee of Publication.

On motion, the bureau was declared to be closed.

THE PRESIDENT then announced that the Bureau of Anatomy, Physiology, and Hygiene for the coming year would be constituted as follows:

Bureau of Anatomy, Physiology, and Hygiene for 1874.

J. D. BUCK, M.D., *Chairman*, . . .	Cincinnati, O.
W. WEBSTER, M.D., ...	Dayton, O.
W. VON GOTTSCHALK, M D., . . .	Providence, R. I.
FRANCIS WOODRUFF, M.D., . . .	Ann Arbor, Mich.
A. R. THOMAS, M.D., ...	Philadelphia.
H. B. VAN NORMAN, M.D., . . .	Cleveland, O.

BUREAU OF PSYCHOLOGICAL MEDICINE.

CLEMENT PEARSON, M.D., of Cleveland, O., announced the following papers as in possession of the bureau:

Vital Dynamics; by J. H. P. FROST, M.D., of Danville, Pa. (Section VIII, Art. II.)

The Importance of Mental Symptoms in our Provings and Prescriptions; by CLEMENT PEARSON, M.D., of Cleveland, O. (Section VIII, Art. III.)

Non-restraint in the Treatment of the Insane; by SAMUEL WORCESTER, M.D., of Burlington, Vt. (Section VIII, Art. IV.)

DR. PEARSON read his paper entitled *The Importance of Mental Symptoms in our Provings and Prescriptions.*

J. D. BUCK, M.D., Cincinnati, O.: The paper we have just heard read contains a confession of ignorance, and an ignorance which we must all confess to regarding the subject of psychology. It seems to me that this ignorance arises entirely from our method of investigating the subject. What we want to enable us to investigate it properly is a thorough knowledge of the nervous system and its modes of action. It has been asserted by many physicians, Hahnemann among the rest, that many diseases are *functional* in their character. Now in these so-called functional diseases or disturbances, there are no reasons whatever for assuming the entrance into the system of any entity in the shape of disease, no new manifestations present; *i. e.*, there are no manifestations which *in kind* are contrary to those which are usually present in the system, and that there are only disturbances *in degree; i. e.*, a function is elevated or depressed in character, but there is nothing new present. And many writers on pathology, Virchow

being foremost among them, declare in a great many instances and to a great extent, that even in organic diseases the same thing is true; that there is no cell, even in such diseases as scirrhus, entirely foreign to the organism, and that the pathological formations are due to modifications of previously existing structure. This is the principal point I wish to make, showing that a knowledge of the structure and workings of the nervous system is necessary to a study of psychology.

Another point to which I would call attention is, the value of the study of comparative psychology. I fully believe that the study of the psychology of animals will prove as advantageous to the study of human psychology as the study of animal physiology has been to human physiology. The subject of Darwinism may have in it more than we think for, the subject of the advancement from a lower to a higher physiological condition. We should not let the cry of "Darwinism" deter us from investigating this subject, although a gentleman's address was once tabooed and put down because there was a shout of "Darwinism" went out against it.

DANIEL HOLT, M.D., of Lowell, Mass.: I do not agree with the author of the paper which has just been read, when he expresses the opinion that the soul and the vital principle are identical.

DR. PEARSON: I did not assert it. I asked whether they were or were not.

DR. HOLT: My opinion is that they are not. I believe man to be made of three parts, the physical, the vital, and the psychological, or, in other words, the body, the vital principle, and the soul. We can get at a very accurate knowledge of the body, but as for the soul and the vital principle, we know but little more than the world has ever known.

The treatment of the diseases of the mind is, in my opinion, better and more successfully conducted on homœopathic principles than on any other. I make this application of the principle of *similia* to the treatment of mental states: I believe it was Stephen Girard who once told a man in great grief to go out into the streets and see if he could not find some person more troubled than himself. He did so, and found so many worse off

than himself that he was cured of his grief. In this way I have treated cases. If I have a patient suffering from great grief, I send him to a funeral, and there he finds consolation from an association with others in grief, and is relieved by it. This plan is practiced in some institutions for the insane in this country, and I believe in France also.

DR. G. W. SWAZEY presented the paper by Dr. J. H. P. Frost on *Vital Dynamics*, and read brief extracts from the same. He commended the paper highly for its value, thoroughness, and laborious research, and regretted that its great length prevented its being read in full.

DR. SWAZEY also presented and read extracts from the paper by Dr. Samuel Worcester, on *Non-restraint in the Treatment of the Insane.*

On motion, the papers of the bureau were accepted and referred to the Committee of Publication.

On motion, the bureau was declared closed.

THE PRESIDENT announced that the Bureau of Psychological Medicine for the ensuing year would be constituted as follows:

Bureau of Psychological Medicine for 1874.

G. W. SWAZEY, M.D., *Chairman*, .	. Springfield, Mass.
CLEMENT PEARSON, M.D., . .	. Cleveland, O.
J. H. P. FROST, M.D., . . .	. Danville, Pa.
SAMUEL WORCESTER, M.D., . .	. Burlington, Vt.
C. G. RAUE, M.D., . . .	. Philadelphia.
GEORGE F. FOOTE, M.D., . .	. Stamford, Conn.
T. L. BROWN, M.D., . . .	. Binghamton, N. Y.

T. L. BROWN, M.D., having obtained the consent of the Institute, spoke as follows:

Mr. President and Gentlemen: I feel that I owe a debt of gratitude to the American Institute of Homœopathy for the new medical ideas with which I have become possessed, and feel also that I should try to repay that debt in some measure. I shall try to do that by making some few suggestions.

There is one subject which does not come before this body with sufficient prominence, and that is, the prevention of disease. We all acknowledge that our bodies are made up of what we eat

and drink, and the air we breathe; and yet we do not seem to regard these as the chief factors of the diseases which afflict us. Impure air, impure water, impure and badly cooked food, go further, I verily believe, in the causation of diseases, than any other agencies. Our cooks should be educated much in the same way that physicians are. We often put things into our stomachs that chemical examination would reveal as poisonous. And we should know what sort of food our patients take, what they are making up their bodies from; we should prescribe for them a certain line of diet, and insist upon their adherence to it; for believe me this is as important in effecting a cure of their diseases as it is to get the homœopathic remedy. We should see to it that they have a proper degree of exercise, proper ventilation for their sick-rooms and dwellings, a proper temperature, and pure water to drink, and that they do not have alcoholic beverages of any kind, or tea, coffee, or the usual condiments of the table—table poisons as they are. Our Materia Medica tells us plainly what effects upon the system are produced by tea, coffee, and spices, and yet we allow our wives and children, and our patients, to use them day by day, and we use them ourselves. We study anatomy, physiology, and hygiene, and yet we daily and hourly violate the laws of life and health, and allow others to do it, for whose health and lives we are in a great measure responsible. Now, gentlemen, shall this continue? Shall we, as physicians and members of this Institute, go on violating these principles of life and health, and allow others to do the same, when we can put a stop to the unphysiological and unphilosophical practices? Is there any physician now before me who uses tobacco, liquor, tea or coffee daily, would ask me, or try to tempt me, to use them also? I believe not one would do so, simply because of his own belief in their injurious character. I have not used any of these poisons for thirty-two years, and I believe my robust health is due to this abstinence.

Physicians in large practice often complain of being worn out with the work of their daily business. One comes home and refreshes himself with tea—partly composed of iron filings—another with a cigar or a pipe. If they could only be brought to know how much better they would be without these things,

how much better they would be rested from their fatigue without them, they would abandon them at once. And if physicians could be brought to understand the really poisonous nature of the ordinary condiments of the table, these would be stricken from the supply list also. It is the duty of every one who comes here as a member of the Institute to present himself in as perfect a condition of mind and body as possible; and yet how can he do that if he persists in the use of these everyday poisons? It is the duty of a physician to present himself to his patients with his mind clear and his body in good condition; but how can he do that if he uses stimulant and narcotic poisons habitually? Or in what condition is a doctor to give advice to his patients regarding what they should eat and drink, and what they should avoid, when he is himself the victim of the very poisons he demands of them abstinence from. How can he expect to have his advice taken when he sets to them so bad an example?

I trust that my words may have some weight with you, gentlemen, in this important matter. And if I find, when we meet again next year, that I have been instrumental in convincing you of the truth of what I feebly have expressed, and in inducing you to follow my advice and example, I will feel that I have in some measure repaid my debt to the Institute.

The Institute then adjourned, to meet at 8 o'clock in the evening.

EVENING SESSION.

The Institute reassembled at 8 o'clock, the President in the chair.

BUREAU OF MEDICAL LITERATURE.

S. LILIENTHAL, M.D., of New York, presented the report and papers of the bureau. The papers presented were as follows:

The Present Need of Homœopathic Literature in America a Publishing Society; by SAMUEL A. JONES, M.D., of New York. (Section X, Art. II.)

The Medical Literature of 1872; by SAMUEL LILIENTHAL, M.D., of New York. (Section X, Art. I.)

DR. LILIENTHAL read the paper by Dr. S. A. Jones, entitled *The Present Need of Homœopathic Literature in America a Publishing Society.*

On motion, the paper was accepted and referred to the Committee of Publication.

DR. LILIENTHAL read his paper entitled *The Medical Literature of* 1872.

On motion, this paper was accepted and referred to the Committee of Publication.

On motion, the bureau was declared closed.

THE PRESIDENT announced that the Bureau of Medical Literature for the ensuing year would be constituted as follows:

Bureau of Medical Literature for 1874.

SAMUEL LILIENTHAL, M.D., *Chairman*, . .	New York.
SAMUEL A. JONES, M.D., ...	New York.
GEORGE E. SHIPMAN, M.D., ...	Chicago.

WILLIAM H. WATSON, M.D., of Utica, N. Y., asked for and received permission to offer the following resolutions:

Resolved, That homœopathists everywhere should strenuously insist upon the non-violation of the great fundamental American principle of "No taxation without representation," by sectarian monopoly of national, state, county, or city institutions, supported by legal assessment, or of those private eleemosynary institutions which derive their support from individual contributions.

Resolved, That the recognition of this principle by the Legislature of Michigan, by its action at its recent session in creating Professorships of Homœopathy in the University of that State, meets with the most hearty approval of this body.

DR. WATSON, the resolutions being seconded, spoke as follows: Mr. President and gentlemen of the Institute, the time has fully come that homœopathists should take a decided stand upon this vital question. In 1830 there were not more than about thirty homœopathic practitioners in the United States, while at the present day there are about five thousand, and there

is scarcely a town of any size from the Aroostook to the Rio Grande, and from the Atlantic to the Pacific, where you cannot find a skilful and educated homœopathic physician, following his vocation to the best interests of suffering humanity; and they gather round them hosts of friends and patrons from the best educated and most intelligent of the community with which they live. It is a notorious fact that the patrons of homœopathy pay a very large proportion of the taxes, national, state, and municipal. Now, notwithstanding this fact, we find that almost all the public eleemosynary institutions of the country are controlled by members of the allopathic school of medicine; no homœopathic practitioner being allowed to practice within their walls by the bigoted and dominant medical sect. Intrenched in her prejudices with zealous exclusiveness, allopathy seeks to maintain her position of being in possession of all the public institutions of the country. Why, sir, the thing is without parallel. Suppose, for a moment, that one religious sect, the Methodists or the Episcopalians or the Presbyterians, should endeavor to have, and actually attained, exclusive control, in a religious point of view, of all the public institutions, and should not allow a clergyman of another faith to be admitted to them, to minister consolation to the sick and dying, how long would the people stand it, do you think? In this connection, sir, it gives me great pleasure to refer to the action of our homœopathic friends of Michigan. We owe a debt of gratitude to these gentlemen, who for twenty years have persistently fought for and maintained their rights in regard to the great university of that State. We have there a great educational institution supported out of the taxes levied upon the people of Michigan, homœopathic and allopathic alike, and all are to have an equal share in its advantages, which is as it should be. There is an old Spanish proverb which says: "The world belongs to him who takes it." Let us proceed on this principle, and if we do so we will have our rights.

It seems to me that there are two principles to guide us in reference to these matters. First. There should be no sectarian test or qualification for office. This point seems to have been fully settled, and the National Government has recognized it as

a part of its polity. Second. No sectarian appropriations for eleemosynary institutions. We should have an equitable share in the positions afforded by these eleemosynary institutions, where medical men are required; we should insist on this as our right, and if we insist on it strenuously and persistently, we will gain our point beyond a doubt; for the sense of justice of the people will override the injustice, prejudice, and self-seeking egotism of the allopathic school.

The resolutions were then adopted unanimously.

BUREAU OF ORGANIZATION, REGISTRATION, AND STATISTICS.

PEMBERTON DUDLEY, M.D., of Philadelphia, presented the report of this bureau. The only paper presented was the following:

Statistics of Comparative Mortality under Homœopathic and Allopathic Treatment in Special Diseases in Philadelphia, during the year 1872; by PEMBERTON DUDLEY, M.D., of Philadelphia. (Section VI, Art. XV.)

DR. DUDLEY read his paper by title, giving a brief explanation of its contents.

On motion, it was accepted and referred to the Committee of Publication.

DR. DUDLEY said that the question of organizing a Bureau of Pædology had been referred to the bureau. He was the only member of the bureau present, and he would not of course speak otherwise on the subject than as an individual. He would personally commend the movement, and trusted some member would move to that effect and that the motion would be agreed to.

THE PRESIDENT announced that the Bureau of Organization, Registration, and Statistics, for the ensuing year, would be constituted as follows:

Bureau of Organization, Registration, and Statistics for 1874.

T. S. HOYNE, M.D., *Chairman*,	Chicago.
P. DUDLEY, M.D.,	Philadelphia.
H. M. SMITH, M.D.,	New York.
W. M. WILLIAMSON, M.D.,	Philadelphia.
M. F. PAGE, M.D.,	Appleton, Wis.
E. U. JONES, M.D.,	Taunton, Mass.
FRANCIS HILLER, M.D.,	San Francisco.

THE PRESIDENT: I take occasion to state here, that all the bureaus have now presented their reports and papers, and the bureaus for the ensuing year have been appointed. I trust that in the discussions which have been had on the various papers, an equal chance and opportunity has been afforded each member to express his or her opinion, and to give his or her views. I have endeavored to deal impartially with all, and trust that I have succeeded in my effort to do so.

WILLIAM WRIGHT, M.D., of Brooklyn, N. Y.: Mr. President, I wish to offer a resolution at this point, if I can get permission of the Institute to do so.

It was moved and carried that permission be accorded.

DR. WRIGHT then offered the following resolution:

Resolved, That the Transactions of this Thirtieth Anniversary of the American Institute of Homœopathy have furnished the most indubitable evidence that woman is not only gifted with the capacity to grasp and the power to comprehend the more intricate and difficult problems of our profession, but that she possesses, in a marked degree, that peculiar tact and suavity of manner and address which pre-eminently fits her for the practice of the healing art, thus demonstrating the wisdom as well as the justice of that resolution of our Institute, which, in 1870, acknowledged her claims and admitted her to full membership.

A MEMBER: I second the resolution.

S. R. BECKWITH, M.D.: I do not believe, Mr. President, that the ladies who are members of this Institute desire the passage of any such adulatory resolution as this, nor do they look for any more rights or privileges than are enjoyed by other members. I think this resolution is altogether superfluous and unnecessary, and I therefore move that it be laid on the table.

DR. BURGHER: I second the motion.

The motion to lay on the table was agreed to.

DR. R. LUDLAM offered the following resolution:

Resolved, That the thanks of the American Institute of Homœopathy are hereby tendered the physicians of the State of Minnesota and of the City of New York, for their invitations to hold the Twenty-seventh Session of the Institute within those places respectively.

Agreed to.

DR. GEORGE W. SWAZEY, Chairman of the committee to whom had been referred the President's address, reported on behalf of that committee as follows:

TO THE AMERICAN INSTITUTE OF HOMŒOPATHY:

Your committee to whom was referred the President's address, report that they have attended to the duty assigned them, and after careful perusal of the same, find themselves unable to give additional force to its many highly valuable suggestions, by any words of their own, and recommend its publication and careful reading by every physician.

G. W. SWAZEY,
P. DUDLEY,
L. E. OBER,
Committee.

On motion, the report was accepted and the committee discharged.

DR. SWAZEY presented the following resolution, which had been adopted by the senior members of the Institute at a meeting held by them June 5th, 1873.

Resolved, That the Senior Members of the American Institute of Homœopathy tender their thanks to the Institute for the distinguished consideration shown them in being exempted from the payment of further dues, while retaining all other rights and privileges of full membership.

Attest: G. W. SWAZEY,
Acting Secretary.

On motion, the communication was received and referred to the Committee of Publication.

THE PRESIDENT: The next business in order will be the presentation of the report of the

COMMITTEE ON A HOMŒOPATHIC DISPENSATORY.

THE SECRETARY: Mr. President, I herewith submit, as the only member of the committee present, the report of the Committee on a Homœopathic Dispensatory. (Section I, Art. XXIV.)

It will be observed, Mr. President, that in this report the committee ask that Dr. Samuel Lilienthal be added to their

number, to complete, if necessary, the department of foreign literature, which may possibly be uncompleted in consequence of the illness and absence of Dr. Carroll Dunham, chairman of the committee. The committee have not the power to make an addition to their number, and trust that the Institute will give them the services of Dr. Lilienthal by vote.

DR. LILIENTHAL: I am perfectly willing to give my assistance to the committee. I will work under Dr. Dunham and for him, but not in his place, which cannot be filled by any one.

THE SECRETARY: Dr. Dunham tendered his resignation as a member of the committee upon leaving for Europe, but it was and is the unanimous opinion of the remainder of the committee that that resignation should not be accepted, and it has not been. We all look forward to and hope for the time to come when Dr. Dunham will be restored to health and resume his position of usefulness amongst us.

It was then moved and unanimously carried that Dr. S. Lilienthal be added to the committee, and that the committee be continued.

The report of the committee was then accepted and referred to the Committee of Publication.

THE PRESIDENT: The next business in order will be the report of the

COMMITTEE ON LEGISLATION.

FRANCIS WOODRUFF, M.D., of Ann Arbor, Mich.: Mr. President, the Committee on Legislation have nothing to report. But Dr. T. F. Pomeroy, of Detroit, Mich., who is here, is ready to present, on behalf of the Homœopathic Medical Society of Michigan, a communication from that Society to the Institute, which you will no doubt find interesting.

DR. T. F. POMEROY then read the following communication:

TO THE AMERICAN INSTITUTE OF HOMŒOPATHY:

The undersigned delegates of the Homœopathic Medical Society of the State of Michigan respectfully submit the following report:

We have an incorporated association, organized in 1868, whose membership embraces forty-two physicians, all graduates of reputable medical col-

leges. Sessions are held on the third Tuesdays and Wednesdays of May and November of each year. The Society has engaged heartily in the endeavor to promote the general interests of homœopathy by seeking recognition in the University of Michigan, a large and flourishing institution under the government of the State. We are happy in being able to report that these efforts have at length been rewarded by entire success. The Legislature at its late session passed an enactment requiring the teaching of homœopathy in the medical department of the university, as follows:

"The Regents of the University of Michigan shall, on or before the 15th day of July, 1873, appoint and maintain two professors of homœopathy in the medical department thereof, viz.: one homœopathic professor of materia medica and therapeutics, and one homœopathic professor of theory and practice. The said professors shall enjoy all the rights and privileges, immunities and emoluments that are now or may be hereafter accorded to the allopathic professors."

This liberal enactment passed the House by the handsome majority of nearly three to one, and the Senate with only five votes against it. This triumph in behalf of equal rights and scientific education has not been achieved without long and persistent efforts and great expenditure of time and money on the part of a few devoted men. Long before our Society had an existence these men were knocking at the door of the University, and their potent demand for entrance, "in the name of the people," has proved invincible.

We would that the method by which the Legislature in its wisdom has seen fit to carry out the clearly expressed wishes of the people had ended all unseemly strife. Endeavors to undo what has been so wisely ordered are manifest, however, but with small prospects of mischief other than that of misleading friends of the cause whose location is remote, but whose interest is keenly attracted.

In order that the profession at large might participate in the important duty of selecting candidates to be recommended to the regency of the University, to fill these positions, the officers of the Homœopathic Medical Society of the State of Michigan issued a circular, under date of April 15th, ultimo, calling for a convention to assemble at Ann Arbor on the 7th of May, and representing that, as the benefits of this law are universal in their application, the physicians of other States should aid in the object by attending personally at the convention and by taking an active part in its deliberations. This circular was distributed as generally as the nature of the case would permit, and the attendance at the convention, though small in numbers, was representative in character. Letters were received from nearly all the States of the Union, expressing the deepest interest, and wishing the convention God-speed in its work. Three nominees for each chair were selected by the convention, none of them residents of Michigan, the physicians of that State preferring to show their disinterestedness of purpose by declining all nominations from their own ranks. No preference was expressed by the convention as between these nominees, and the nominations were unanimous.

Nor has the State of Michigan limited her recognition of our science to the medical department of her University. She has placed the hospital of the State prison at Jackson under homœopathic management for six of the last eight years,—there being an interregnum of two years in which the old school method was given another chance, and its claims, let us hope, forever abolished.

We do not feel that any apology is needed for occupying the attention of the Institute in these details, as the fact that the State of Michigan, by the enactment of this law, has been the first to bestow governmental recognition upon homœopathy, is of immense and far-reaching importance. It indicates that the strongholds of old school bigotry and intolerance must surrender to the weapons of justice and common sense. It means that other States will follow the glorious lead. It means that the General Government will swiftly fall into line, and that ere long homœopathy shall dispute with allopathy its claim to monopoly of the army and navy of the United States

A. A. BANCROFT, M.D.
I. N. ELDRIDGE, M.D.

On motion, the communication was accepted and referred to the Committee of Publication.

THE PRESIDENT announced that the Committee on Legislation for the ensuing year would be constituted as follows:

Committee on Legislation for 1874.

I. T. TALBOT, M.D., *Chairman*,	Boston.
R. J. MCCLATCHEY, M.D.,	Philadelphia.
J. P. DAKE, M.D.,	Nashville, Tenn.
T. S. VERDI, M.D.,	Washington, D. C.
E. M. KELLOGG, M.D.,	New York.
H. M. PAINE, M.D.,	Albany, N. Y.
E. D. JONES, M.D.,	Albany, N. Y.

DR. I. T. TALBOT offered the following resolution:

Resolved, That the Committee on Legislation be and are hereby instructed to prepare and obtain an act of incorporation for the American Institute of Homœopathy, and report a suitable plan for permanent organization under it.

DR. R. LUDLAM seconded the resolution.

Agreed to.

THE PRESIDENT: The next business in order will be the report from the

COMMITTEE ON FOREIGN CORRESPONDENCE.

THE SECRETARY stated that no member of that committee was present, and no report had been furnished.

DR. R. LUDLAM moved that the committee be continued for another year.

Agreed to.

THE PRESIDENT: The next business in order will be the report of the

COMMITTEE ON THE WORLD'S HOMŒOPATHIC CONVENTION.

PEMBERTON DUDLEY, M.D., of Philadelphia, Secretary of the committee, presented the report. (Section I, Art. XXVI.)

Accepted, and appropriately referred.

The Institute then adjourned, to meet at 9½ o'clock the next morning.

FOURTH DAY.

The Institute was called to order at 9½ o'clock, by the President.

DR. F. R. MCMANUS: I understand, Mr. President, that the first Tuesday in June, 1874, was selected as the time for the next meeting of the Institute. Now, as the first Tuesday in June comes on the second day of the month, and as it is a matter of considerable importance that members who reside at some distance from the place of meeting should be able to avail themselves of the excursion rates which commence on the first day of June, I move a reconsideration of the vote fixing the time, that I may afterwards move to substitute the second Tuesday in June for the first Tuesday.

The motion to reconsider was agreed to.

DR. MCMANUS moved that the second Tuesday in June be the time for the next meeting.

DR. I. T. TALBOT said that the first Tuesday in June had been the day generally selected, and moved, as a substitute, that the matter be left to the Executive Committee of the Institute,

with power to substitute the second for the first Tuesday, if they shall deem it of sufficient advantage to the members to warrant the change.

Agreed to.

DR. S. LILIENTHAL moved, and it was seconded, that hereafter the election of officers shall take place on the morning of the second day of the session.

Not agreed to.

DR. GEORGE W. SWAZEY moved, and it was seconded, that for obvious reasons the necrological report shall hereafter be presented on the first day of the session.

Agreed to.

The committee to whom had been referred the subject of a National Provers' College, made the following report:

REPORT OF THE COMMITTEE ON A NATIONAL COLLEGE OF DRUG PROVERS.

The committee to whom was referred the subject of a National College of Drug Provers, have duly considered the subject, and would respectfully report as follows:

The proving and reproving of drugs and the purification of the Materia Medica are subjects of the greatest importance for the consideration of the Institute; and any method by which these ends can be attained are worthy the most extended and careful consideration. The committee would therefore recommend that the papers and discussions bearing on the subject and presented at this session of the Institute, be published in the *Transactions*, for the examination and consideration of the members, in order that they may be prepared to act more judiciously thereon at some future session; and that the Bureau of Materia Medica, Pharmacy, and Provings, be requested to continue their investigations on this subject, and that it be made a topic of discussion at the next session of the Institute.

I. T. TALBOT,
T. F. ALLEN,
S. R. BECKWITH,
T. L. BROWN,
LYMAN CLAY,
Committee.

On motion, the report was accepted and the committee discharged.

N. F. COOKE, M.D., of Chicago: Mr. President, I am satisfied that the resolutions I presented the other day were perhaps so ill-constructed that they were not generally understood. The terms of the resolutions no doubt misled the Institute as to their purport. I have, at the suggestion of a large number of members, whose opinions I respect, prepared a set of resolutions which more clearly express the ideas I wished to convey on the subject of abortion. These are as follows:

Resolved, That in the progress of Homœopathy, it has been demonstrated that the pathological conditions incident to the state of pregnancy, can be successfully treated without resorting to the production of abortion.

Resolved, That the induction of premature labor cannot be legitimately resorted to with the object of saving the life of the mother or child, save in those cases only in which the written certificate of three or more reputable physicians attests that the operation is necessary for this purpose.

Resolved, That should instances occur where delivery through the natural passages is impossible, the Cæsarean section should be resorted to in all cases save those in which the death of the fœtus clearly ascertained shall have rendered the operation of embryotomy both feasible and proper.

These are the resolutions, Mr. President, and if they meet with a second, I propose to say a few words concerning them.

DR. T. P. WILSON: I second the resolutions.

DR. COOKE: Now, Mr. President, I propose to occupy the attention of the Institute for but a few moments. The leading object of these resolutions is to save human life. It is for that object we are banded together as an association of physicians. The question is, will the adoption of these resolutions tend to this object? I am sure no words are necessary to prove that. It has been estimated by persons experienced in statistics that in New York City alone upwards of five thousand children in utero are destroyed every year, through the production of abortions, with quite a large percentage of deaths of women in addition. How often do you suppose, sir, the Cæsarean section would have to be resorted to under these resolutions, in that city? I do not mean to cast reflections on any physician from New York. I am merely citing an example, and wish to commence here the formation of a public sentiment in regard to this matter that will

put a stop to this terrible holocaust of murders. In all the large cities the same trade in human life is carried on, and the miserable villains who practice it escape punishment under those very laws which should lead to their being strung up. Nor is this nefarious business confined to the cities. I am informed by numerous physicians who practice in country places, that the same practice is resorted to in the country to a very great extent. In fact, it is a question in my mind whether more abortions are committed in the cities or in the country. I think I am making a low estimate in asserting that not fewer than one hundred thousand lives are thus sacrificed every year. And for what? That the privilege may be accorded to a few scientific gentlemen of murdering an occasional baby on the doubtful, the exceedingly doubtful ground of saving the life of the mother.

The means which we possess, the therapeutic resources at our command, as homœopathic physicians, demand that the systemic irritation due to pregnancy be in all cases controlled; or if there be cases where homœopathy is unable to control such difficulties, it must be due to the existence of some latent disease, which renders recovery impossible under any circumstances.

What shall we do with these cases in which the pelvic diameter is less than one and a half inches, and in which the recognized jury of medical men declare that, in their opinion, a living child cannot be born by the natural passages? The procedure is very clear. Seizing the proper moment, and taking the patient in the best possible condition, with everything in her favor as regards her health and the surroundings which we can command, we perform the Cæsarean section, with the great probability of saving two lives. And I claim, sir, that the operation of the Cæsarean section, under these favorable circumstances, ought to present as good results as are presented by the operation of ovariotomy. In fact, I claim that the favorable results should be in larger proportion, because when ovariotomy is performed, there exists a previous pathological condition which has been undermining the health of the patient to a greater or less extent, while in the other case you have the advantage of having the subject of the operation in a state of perfect health.

DR. I. T. TALBOT: I am of the opinion, Mr. President, that

this Institute should not indorse any sentiment or any resolution likely to be repugnant to the sense of the general profession. The gentleman who has introduced these resolutions has simply expressed his opinion, which is not, I am sure, the sense of the profession; and on this subject of the commission of abortion the Institute has already spoken with sufficient clearness and with sufficient emphasis. I scarcely know whether to move their reference to a committee, or that they be laid on the table.

DR. R. LUDLAM: I move that the resolutions be laid on the table.

DR. T. P. WILSON: I would suggest that the resolutions, with the exception of the last one, be adopted. If Dr. Talbot will read the first and second resolutions I think there will be no objection to their adoption.

DR. TALBOT then read the resolutions, and spoke adversely to each.

DR. G. W. SWAZEY: I move that the resolutions be laid on the table. I do this to save time.

DR. LUDLAM: I second the motion.

THE PRESIDENT declared that the motion was agreed to.

DR. COOKE demanded a call of the house, which, after considerable discussion, the greater part of which was lost to the stenographer, resulted in a vote of thirty-seven in the affirmative and twelve in the negative.

THE PRESIDENT then declared that the resolutions were laid on the table.

THE PRESIDENT then announced that the next business in order would be the report of the

COMMITTEE ON HOMŒOPATHIC COLLEGES.

DR. I. T. TALBOT announced the following papers as the work of the committee:

General Report of the Committee; by DAVID THAYER, M.D., of Boston, Mass. (Section I, Art. XXVII.)

The Relations of the Institute to Medical Schools; by J. P. DAKE, M.D., of Nashville, Tenn. (Section I, Art. XXVII.)

The University of the State of New York; by J. P. DAKE, M.D. (Section I, Art. XXVII.)

DR. J. P. DAKE'S papers were read, accepted, and referred to the Committee of Publication.

DR. DAVID THAYER'S paper was read, accepted, and referred.

DR. I. T. TALBOT then made the following statement on behalf of the Committee on Colleges, and as part of their report:

A plan has been proposed to the Committee on Homœopathic Colleges to centralize the colleges of the West into one medical university, to be located in one of the cities of the West; said university to be endowed with a fund of not less than one million dollars, embracing a faculty teaching every branch and department in medicine, and its curriculum of instruction covering a period of time sufficient to thoroughly and fully educate its graduates. The Committee on Colleges would suggest the appointing of a committee to consider the whole subject, and report thereon at some future time.

DR. S. R. BECKWITH, of Cincinnati, being called upon to speak on this subject, addressed the Institute as follows:

Mr. President and Gentlemen: I believe the plan proposed is a feasible one, and it certainly would be a very desirable consummation, and I have no doubt that the day is not far distant when our friends in the East will find it desirable and necessary to concentrate their strength and efforts in like manner. I understand that it is desired that the Institute recommend the establishment of such a Western university by the consolidation of all the present colleges into one. I can readily see the advantages of such a consolidation; and I can understand how the several faculties of the Western homœopathic colleges, men who are experienced in the training of students, and the younger men, rich in energy, can be utilized in this grand scheme. This plan originated with my friend Dr. E. C. Franklin, and he deserves credit for it. He is one of the oldest lecturers in the country in this department, and no one has done his work more self-sacrificingly. And I must not forget to mention Drs. Wilson, Ludlam, and Schneider, men of different colleges, who are willing to co-operate in this grand scheme and help to make it a success; and there are others, also, whose names I do not now think of. We are all willing to go into the work, and contribute in any way

towards making it a success. And I believe that it would result in this, after a time, that the men who were educated at this institution would contribute of their means to make permanent endowments for its support. As for myself, I am ready and willing to go anywhere and to do anything to further the good work; to take the humblest position, or none at all, as it may be thought best.

It strikes me that a committee should be appointed, consisting of two members from each of the Western colleges, to fairly and honorably confer together on this important subject, and lay aside all personal feelings and personal interests, having nothing at heart but the interests of homœopathy, and report the results of their deliberations to this body at some future time.

A MEMBER: Let us hear from Dr. Franklin.

DR. E. C. FRANKLIN, of St. Louis, Mo.: I believe that my friend, Dr. Beckwith, has gone over the ground pretty thoroughly, and there is not much left for me to say. I am very glad that a move has been made in this direction, and I will aid and support it in every way that I can. We should have such an institution as would command the respect and admiration of the whole civilized world if this scheme were carried out fully. At present, though the men who are doing the work in the several colleges are doing that work well, and are turning out a fine set of graduates, still each one of these institutions is, in a measure, crippling the others. But if we had this grand Western university our diplomas would be eagerly sought for. I am willing to work diligently for the cause, or to work not at all, and will give of my pecuniary means to the extent of my ability.

DR. R. LUDLAM, of Chicago, having been called for, said: Whatever I may say, Mr. President, must be regarded simply as the remarks of an individual, for I have no right to speak for the faculty of which I have the honor to be a member, as it is only within the last hour I have heard of the proposition. I will say, however, as one who has labored for a number of years, with as much zeal and ability as I possessed, to educate men and women for the medical profession, that I am willing to do all in my power to further the plan of consolidating our Western colleges into one. I am free to confess that my ambition as a

litterateur and my desire to teach have undergone considerable change within the past few years, and that I am now more desirous of learning than of teaching; still, if I can aid this enterprise in any way, I shall most assuredly do so.

There is one point which has not been touched in the excellent speeches which have been made on this subject. If this plan of establishing a Western union college or university should result in the establishment of measures whereby clinical teaching will be greatly facilitated, as it would be by the opening of large hospitals for every class of diseases, it will be worth while for us to have interested ourselves in the scheme, even for this one object alone. It will repay for all trouble, and be more advantageous to homœopathy than anything else could possibly be. I believe the time has fully come when we should turn away from the discussion of transitional, metaphysical, and nonsensical subjects in relation with the practice of medicine, and turn our attention wholly to the discussion of the treatment of diseases, just as we see them in everyday life, in the sick-room and in the wards of the hospital. And it is the want of teaching of this character that is the serious defect in the education of medical students, who are now turned adrift to practice, with little or no practical knowledge of disease or of human nature. If this university will supply this defect in our methods of teaching, it will indeed be a blessing to the community as well as to the profession.

DR. N. SCHNEIDER, of Cleveland, O., was called for and spoke as follows: I do not know that I have anything to add to what has been already said, except perhaps to say that I am ready at any moment to enter heartily into this work. I indorse all that Dr. Ludlam has said in regard to the importance of clinical teaching, and if our students, who are now not half taught, can be benefited in this way, by this proposed university, I am for it heart and soul, and will do everything in my power, with work and with money, to help it along. I firmly believe that if we start this enterprise, the friends of homœopathy in the West will come up nobly to its support, and will furnish all the money that may be necessary to establish and endow such an institution.

DR. S. LILIENTHAL: I object, Mr. President, to the East being left out. I am in favor of a grand central university for the East, West, North, and South. I do not care where it is to be located, nor who are to be the professors, and I am sure the Eastern colleges will be as self-sacrificing as the Western. It might be an advantage to have the university in the West, because it would be cheaper living for the students.

DR. D. E. HOLT, of Lowell, Mass.: I have a few words to say in opposition to this scheme. It is all very well for gentlemen to talk about the sacrifices they have made, and are willing still to make, to have a university located in the West. But I see this as an objection to the plan, that students in the State of Maine, for instance, who want to get a good medical education, will not be willing to travel all the way to Cincinnati, two or three times, and stay there two or three winters to get it. Economy and every other consideration will impel them to go to a college nearer home, and if there be no homœopathic institution except the grand Western school, then they will go to allopathic colleges. And then, again, I am afraid the clinical teaching referred to by Dr. Ludlam, would be a failure. You cannot show a student the phenomena and treatment of a case of cerebro-spinal meningitis in a hospital.

DR. LILIENTHAL: It is done by the old school in their hospitals where clinical instruction is given.

DR. S. R. BECKWITH: I move that the President appoint a committee to confer together on this subject, and report at the next meeting of the Institute.

Agreed to.

The President then appointed the following

Committee on Consolidated Western Medical School.

S. R. BECKWITH, M.D., *Chairman*,	Cincinnati, O.
R. LUDLAM, M D.,	Chicago, Ill.
E. C. FRANKLIN, M.D ,	St. Louis, Mo.
H. H. BAXTER, M.D.,	Cleveland, O.
I. T. TALBOT, M.D.,	Boston, Mass.
T. F. ALLEN, M.D.,	New York.
T. F. POMEROY, M.D.,	Detroit, Mich.
CORNELIUS ORMES, M.D.,	Jamestown, N. Y.

F. R. McMANUS, M.D., Chairman of the Board of Censors, then made the final report of the Board, submitting the names of a number of applicants for membership, with the statement that they had been found eligible.

On motion, these were elected members of the Institute.

DR. McMANUS then spoke as follows:

Mr. President and Fellow-members of the Institute: I desire to say a few words before I leave you, which I must do very soon, as I am called away, and must leave for home ere the close of the session. On behalf of the Board of Censors I would say that they have carefully examined into the character and standing of every applicant for membership, and have reported none to you as worthy about whom there was the slightest doubt. Of the large number elected at this session, we trust that all will turn out to be worthy and acceptable members of this honorable body.

For a number of years I have been honored with the responsible position of Chairman of the Board of Censors, and can lay my hand on my heart and conscientiously say, that during all that time I have endeavored to do my duty according to the best of my ability, and to serve the best interests of the Institute and of homœopathy without fear or favor. I may have hurt the feelings of some persons by my rigid construction of the rules of the Institute, but if so, it was not done with other intent than that of discharging my duty honestly in my responsible position.

While I stand before you, as another session is rapidly drawing to a close, I am reminded that one year ago, at our session in the City of Washington, we had the pleasure of having associated with us, our late lamented friend and brother, Dr. Samuel Gregg, of Boston, who was endeared to us all, and whose urbanity, efficiency, fidelity, and zeal, are in the recollection of every member of this Institute. He has been called from his labors unto his rest, and I am reminded that I, also, in the natural course of events, am fast approaching toward the end of my career, and rapidly dropping into the sere and yellow leaf, and the pleasure of meeting with you may not be afforded me many more times,—perhaps not even once more. But while I feel this, I also hope, and I am sure you will join with me in

this hope for yourselves and for me, that when the time arrives for our labors here on earth to end, we, like Dr. Gregg and other veterans who have preceded him, may find our acceptance on the sacred shore, with the words of welcome "Well done, good and faithful servant; you have been faithful over a few things, I will make you ruler over many; enter into the joy of your Lord." I can only say to you now, farewell!

DR. S. LILIENTHAL moved that the thanks of the Institute be given to Dr. F. R. McManus, of Baltimore, for his able and zealous labors on behalf of the Institute for many years, as Chairman of the Board of Censors, and that the Secretary be and is hereby instructed, to have this vote of thanks properly engrossed and forwarded to Dr. McManus.

Agreed to by a unanimous vote, which was taken by the Institute rising.

The President announced that the Committee on Homœopathic Colleges for the ensuing year, would be constituted as follows:

Committee on Homœopathic Medical Colleges for 1874.

DAVID THAYER, M.D., *Chairman*, . .	Boston.
J. P. DAKE, M.D., ...	Nashville, Tenn.
JOHN C. MORGAN, M.D., ...	Philadelphia.

THE SECRETARY announced that he had received a lengthy report from the Homœopathic Medical Society of California, which he wished to have referred to the Committee of Publication.

On motion, the report was so referred.

THE SECRETARY also stated that he had certain papers which had been forwarded to him as a partial report of the Bureau of Organization, Registration, and Statistics.

DR. I. T. TALBOT moved that these papers be referred to the Committee of Publication.

Agreed to.

THE SECRETARY stated that he had received a letter from Dr. Carroll Dunham, a member of the Institute, who was sojourning in Italy on account of his health, which stated that the authorities of Naples had decided to institute a Professorship

of Homœopathy in the University of Naples, and that Dr. Tommaso Cigliano, at the recommendation of his colleagues, had made application for the chair about to be instituted. The rules were such that to obtain a professorship in that institution, an applicant must be able to show a certificate or diploma to the effect that he was known to be proficient in the particular department he desired to teach. Dr. Dunham had made application through him, the Secretary, to have a special diploma granted to Dr. Cigliano, by the Hahnemann Medical College of Philadelphia, and he believed a similar application had been made to the Homœopathic College of New York, to meet the requirements of the case. The Secretary had thought it would be a compliment to Dr. Cigliano, and to Drs. Dunham, Dadèa, Rocco Rubini, and others who had commended him, to elect Dr. Cigliano a corresponding member of the Institute. He thus submitted the matter to the judgment of the Institute.

DR. I. T. TALBOT moved that Dr. Tommaso Cigliano, of Naples, editor of *Il Dinamico*, be a corresponding member of the Institute.

Agreed to.

THE SECRETARY stated that he had received the following communication, through Dr. Hering, of Philadelphia, from Dr. Sambhul Mukhopádhyáya, of Calcutta, India:

WELLINGTON SQUARE, CALCUTTA,
April 25th, 1873.

SIR: Will you allow an utter stranger, whose name you will probably find it difficult to pronounce, the liberty to address from the Antipodes a distinguished man of science whom he reveres?

I would certainly not have ventured to disturb you if I did not think that the subject of my communication might interest you.

I am a Hindoo by birth, and I might say almost a European by education, though I have very good reason to be proud of my nationality. Standing between two races and two civilizations, as I have been privileged to do, the Eastern Aryan and the Western Aryan, and thoroughly appreciating both, and believing generally in European science, welcoming, that is, the improvements madé by Europe on the early fruits of Hindoo, Chinese, and Arab thought and research, as the more bigoted of my countrymen are not prepared to do, I have had my attention very early drawn to the weakness and primitive state of the European science and art of medicine, save so far as surgery is concerned. Often did I see the bungling and failure of Euro-

pean doctors and the subsequent triumph of the despised professors of the Oriental methods in the same cases. I was myself led to the study of European medicine in consequence of a chronic disease under which I labored, which confined me to bed for years, and had brought me near my grave. It was then that I discovered the full weakness of the so-called science, the absolute poverty of the vaunted art. I could not help contrasting the number and variety of drugs in native medicine and the few reliable remedies of European medicine, that might be counted on the fingers. The all but perfect success of native medicine in my case, following the helplessness of the European art, still further confirmed me. Since then I gave more and more attention to the native art, but familiarity did not heighten the first impression. For I could not help laughing at the primitive anatomical, physiological, and chemical notions with which the art was associated. Still the vast therapeutical resources of the native professors were not to be questioned, and I only wished that they had had an accurate knowledge of the collateral sciences and the guidance of any principles in the employment of their resources beyond conflicting experience, to utilize the mineral and vegetable abundance of Asia for the good of humanity. These principles I have at length found in homœopathy, with which I have become acquainted within the last ten years or so. It took me, however, several years to familiarize myself with homœopathic literature, and be well satisfied with and grounded in homœopathic principles. As even allopathic bigotry would not permit its practitioners, in spite of repeated failures, to avail themselves of the useful experience of Hindoo and Mohammedan medicine, how much more hopeless is it to expect the latter to profit by the science of the former or the laws of cure of Hahnemann. I have, therefore, determined to do what little I can to increase the weapons for combating disease, by selecting drugs unknown to European medicine of either school, from the native Materia Medica, and from popular domestic practice among the natives of this country, and proving them on the healthy and employing them in medicine. The difficulties of this task are very great, more than you can easily imagine. But as much or little as I can effect will be a pure gain. I have already proved on one subject several such new Indian drugs, and, according to the record, employed a few in a few cases with very satisfactory results. I have been so much encouraged that I am about to prosecute a study in right earnest of Sanskrit Therapeutics, and am accordingly getting portions of MSS. copied for me. For my slight experience has convinced me that ancient Hindoo therapeutics is a most rich storehouse of experience of very valuable drugs unknown to Western science, and I intend to attack the fountainhead.

Meanwhile, life is so uncertain that I wish to lay before the world the results of my researches with the drugs I have already proved. With this view I drew up a short introduction and accounts and provings of a few drugs. The introduction is ready, but on second thoughts I hesitate to bring my pamphlet out in this country, where there is so much prejudice against natives and homœopathy. I think that more attention would be commanded by the work if appearing in Europe or America, and particularly under the

auspices of such men as yourself or of some homœopathic society. If you be of the same opinion and kind enough to help me in my views, I shall feel exceedingly obliged to you for letting me know, that I might send my accounts of the drugs proved, with the provings, and clinical remarks, when any.

I send a proof of the introduction. I have of course stopped the progress of the work in the press here. With the profoundest veneration,

I beg to subscribe myself, Sir,

Your most humble servant,

SAMBHUL MUKHOPÁDHYÁYA.

NOTE.—The INTRODUCTION referred to by Dr. Mukhopádhyáya contains provings he has made, and was sent to Dr. Hering in the form of a proof-sheet.

The letter was indorsed by Dr. Hering in the following terms:

"The 'Introduction' inclosed was received from Calcutta, India, with a letter from the India doctor. The author concluded to stop the further printing of his invaluable work, to ask the Americans if his provings cannot be printed under the auspices of a homœopathic society. He offers to send the manuscript of provings and clinical remarks. Please take action in this matter. I have written the Doctor to send on his MSS., and that his provings will be printed in this country, the home of homœopathy. India has given us Nux Vomica, Ignatia, Anacardium, Assafœtida, Camphor, Cocculus, Euphorbium, Nux Moschata, and others. We may get more of equal importance."

THE SECRETARY stated further that at a consultation held between Dr. Hering, Dr. S. Lilienthal, and himself, it had been thought best to bring the whole matter before the Institute, and ask that Dr. Mukhopádhyáya be elected a corresponding member, which will give that gentleman an opportunity of communicating with the Institute on the subject of his provings, and submitting them to the Committee of Publication.

DR. I. T. TALBOT moved that Dr. Mukhopádhyáya be elected a corresponding member.

Agreed to.

DR. E. C. FRANKLIN submitted the following resolutions:

WHEREAS, In view of the fact that the reports of the Surgeon-General of the United States Army, as exhibited in volumes one and two of the first part of the Medical and Surgical History of the War of the Rebellion, have received a too limited circulation, by reason of an insufficient issue of the same by Congress: therefore,

Resolved, That the President and Secretary of this Institute be directed to petition Congress at the next session, in behalf of the homœopathic profession, asking that the edition recently issued be reproduced in sufficient number to permit of general distribution to the members of the profession throughout the country.

Resolved, That the thanks of this Institute are due and are hereby tendered

Congress, for aiding thus far in developing and presenting to the profession reports of the Surgeon-General, as herein specified.

Resolved, That the thanks of this Institute are hereby tendered the officers of the United States Army who have, by sacrifice and labor, been instrumental in placing before the profession the valuable information contained in volumes one and two of the first part of the Medical and Surgical History of the War of the Rebellion.

These resolutions were unanimously adopted.

DR. I. T. TALBOT then submitted the

NECROLOGICAL REPORT,

by Henry D. Paine.

On motion, the report was accepted and referred to the Committee of Publication. (Section I, Art. XXV.)

THE PRESIDENT: I would state to the Institute that a telegram has been received by the Secretary, announcing the death, this morning, at his residence in Philadelphia, of Dr. David James, a veteran member of this Institute.

PEMBERTON DUDLEY, M.D., of Philadelphia: Mr. President, the telegram received by the Secretary announces that Dr. David James died this morning at five o'clock. He was in the sixty-ninth year of his age, and at this session became a veteran member of the Institute, and entitled to be placed on the honorary roll, as he became a member in 1846. He was the father of Drs. Bushrod W. and John E. James, of Philadelphia, both of whom are well-known members of the Institute. It seems to me that it would be eminently proper for us to take some action on this announcement. I was one of Dr. James's patients from my earliest youth, afterwards his student, and always his friend, and I loved him in life, and shall ever cherish his memory. With mournful pleasure I submit the following:

WHEREAS, We have just learned, with deep regret, of the decease this morning, at his residence in Philadelphia, of David James, M.D., a veteran member of this Institute, and one of the earliest and most self-sacrificing champions of homœopathy in America, therefore,

Resolved, That we recognize in his death a serious loss alike to the profession and the community, and that we tender to his family our warmest sympathies in their affliction, which has separated from them a loved husband and an honored father.

THE PRESIDENT: The announcement of the decease of Dr. David James, one of the senior members of the Institute, demands from me a respectful notice. For several years after he became an associate in this body, I enjoyed his acquaintance in professional and social life, and uniformly found him a mild, genial, and high-toned Christian man. He had an enviable standing in the profession, was considerate, respectful, and just in his professional intercourse, and in his death, although somewhat ripened in years, we deeply feel his loss, knowing that this Institute and society in general, has been bereft of one of their most valuable members. We who knew him well many years ago, and when in the prime of life, are reminded that the time is not distant when we too shall be compelled to yield up our bodies to the dust—and happy will it be for us if, like him who has just left us, we shall lie down to final rest and peace.

The preamble and resolutions offered by Dr. Dudley were adopted unanimously.

DR. PEMBERTON DUDLEY then submitted the report of the

COMMITTEE ON THE WORLD'S HOMŒOPATHIC CONVENTION.

The report was accepted and referred to the Committee of Publication. (Section I, Art. XXVI.)

DR. I. T. TALBOT moved that the by-laws be amended to create a

BUREAU OF PÆDOLOGY,

to consist of not less than five members. He stated that the Bureau of Obstetrics had included the departments of diseases of women and children, but that gynæcology had been separated from it and a new bureau organized, and now he thought it would be well to create a separate bureau for the diseases of children, under the title of the Bureau of Pædology.

The motion was agreed to.

The President then made the following appointments for the

Bureau of Pædology for 1874.

T. C. DUNCAN, M.D., *Chairman*,	Chicago, Ill.
EMMA SCOTT, M.D.,	New York.
F. R. MCMANUS, M.D.,	Baltimore, Md.
C. H. NIEBELUNG, M.D.,	St. Louis, Mo.
H. N. MARTIN, M.D.,	Philadelphia.
N. R. MORSE, M.D.,	Salem, Mass.

DR. H. H. BAXTER, of Cleveland, O., invited the Institute to visit the Cleveland Homœopathic Hospital, on Huron Street, Cleveland.

DR. E. C. FRANKLIN moved that the invitation be accepted, with thanks to Dr. Baxter for his polite attention.

Agreed to.

T. FRANKLIN SMITH, M.D., of New York, presented the report of the

COMMITTEE ON CREDENTIALS.

The report was accepted and referred to the Committee of Publication. (Section I, Art. XXVIII.)

ELECTION OF OFFICERS.

DR. I. T. TALBOT: I move that we now proceed to the election of officers for the ensuing year.

Agreed to.

The Institute then proceeded to elect officers for the ensuing year, commencing January 1st, 1874, with the following results:

President.

JOHN J. YOULIN, M.D., ... Jersey City, N. J.

Vice-President.

N. SCHNEIDER, M.D., ... Cleveland, O.

General Secretary.

ROBERT J. MCCLATCHEY, M.D., ... Philadelphia.

Provisional Secretary.

BUSHROD W. JAMES, M.D., ... Philadelphia.

Treasurer.

E. M. KELLOGG, M.D., ... New York.

Censors.

F. R. MCMANUS, M.D., ... Baltimore.
T. F. POMEROY, M.D., ... Detroit.
H. H. BAXTER, M.D., ... Cleveland, O.
A. R. WRIGHT, M.D., ... Buffalo, N. Y.
MARY S. BLAKE, M.D., ... Boston.

DR. S. R. BECKWITH moved that the thanks of the Institute be tendered the physicians of Cleveland for their many acts of courtesy to members during the session.

Agreed to.

DR. J. J. YOULIN moved that the thanks of the Institute be tendered Dr. and Mrs. Schneider, of Cleveland, for the elegant entertainment of the Institute on the evening of the "Preliminary Meeting."

Agreed to.

DR. YOULIN moved that the thanks of the Institute be tendered the worthy and venerable President, Dr. A. E. Small, for the able and courteous manner in which he had discharged the duties of his office during the session.

Agreed to.

DR. YOULIN also moved a vote of thanks to the Secretaries and the Treasurer of the Institute, for services faithfully rendered.

Agreed to.

Dr. R. LUDLAM moved a vote of thanks to the PRESS of Cleveland for the use of their columns, and to the *Associated Press* for favors.

Agreed to.

DR. I. T. TALBOT moved a vote of thanks to the officers and faculty of the Cleveland Homœopathic Hospital College for the use of their building during the session, and for other attentions.

DR. TALBOT also moved a special vote of thanks to the General Secretary, who had, he said, not only attended to the duties of his office and to the wants and wishes of the members during the session, but had also furnished the reports of the proceedings which had appeared in the Cleveland newspapers, and

the report to the Associated Press, which had been telegraphed all over the land.

Agreed to.

On motion of Dr. I. T. Talbot, DR. C. R. MORGAN was elected *Official Stenographer* of the Institute.

Dr. Morgan returned thanks.

THE PRESIDENT thanked the members for their kind and courteous treatment during the session.

On motion of Dr. J. H. McClelland, of Pittsburg, the Institute then adjourned.

COMPLETE REPORT OF THE BOARD OF CENSORS.

NEW MEMBERS ADMITTED.

The following is a complete list of new members elected during the session, in accordance with the recommendation of the Censors, with the time and place of graduation of each.

ALLEN, GEORGE D., M.D., Portland, Mich.,	Cleveland Hom. Med. Coll., 1866.
ARMSTRONG, WM. P., M.D., Paris, Ill.,	Cleveland Hom. Med. Coll., 1866.
BAILEY, BENJAMIN F., M.D., Lansing, Mich.,	Cleveland Hom. Med. Coll., 1860.
BARTLETT, HENRY H., M.D., Geneva, O.,	Cleveland Hom. Med. Coll., 1869.
BENEDICT, THOMAS B., M.D., Ionia, Mich.,	Cleveland Hom. Med. Coll., 1861.
BOLLEN, GEORGE, M.D., Mt. Barker, South Australia,	Hah. Med. Coll. of Chicago, 1873.
BRADFORD, OLIVER L., M.D., Andover, Mass.,	Cleveland Hom. Med. Coll., 1861.
BREYFOGLE, WM. L., M.D., Louisville, Ky.,	Hom. Med. Coll. of Penna., 1866.
BUFFUM, JOSEPH H., M.D., Pittsburg, Pa.,	N. Y. Hom. Med. Coll., 1873.
BUTLER, WM. M., M.D., Montclair, N. J.,	Coll. of Phys. and Surgs., N. Y., 1873.
CANFIELD, CORRESTA T., M.D., Titusville, Pa.,	Cleveland Hom. Med. Coll., 1872.
CARTER, HIRAM W., M.D., Cuyahoga Falls, O.,	Cleveland Hom. Med. Coll., 1869.
CARUTHERS, ROBERT E., M.D., Alleghany City, Pa.,	Hah. Med. Coll. of Philad'a, 1873.
COSSAART, A. B., M.D., Otego, N. Y.,	N. Y. Hom. Med. Coll., 1869.
CHANTLER, ISRAEL B., Alleghany, Pa.,	Hah. Med. Coll. of Philad'a, 1873.
CHASE, SARA B., M.D., Brownhelm, O.,	Cleveland Hom. Med. Coll., 1869.
DAKE, CHARLES R., M.D., Brooklyn, N. Y.,	Coll. of Phys. and Surgs., N. Y., 1873.
DETWILER, WM. M., M.D., Findlay, O.,	Cleveland Hom. Med. Coll., 1867.
DUNNING, JULIA A., Corry, Pa.,	Cleveland Hom. Med. Coll., 1871.
ELDRIDGE, C. S., M.D., Chicago,	N. Y. Hom. Med. Coll., 1861.
ELDRIDGE, ISAAC N., M.D., Flint, Mich.,	Cleveland Hom. Med. Coll., 1863. N. Y. Hom. Med. Coll., 1867.
ENSIGN, JENNIE, M.D., New York,	Eclectic Med. Coll. of N. Y., 1871.
FISH, EVERETT W., M.D., Cincinnati, O.,	Hom. Med. Coll. of Missouri, 1868.
FISHER, A. LE ROY, M.D., Elkhart, Ind.,	Hah. Med. Coll. of Philad'a, 1871.
FRASIER, JEROME B., M.D., Conneautville, Pa.,	Cleveland Hom. Med. Coll., 1859.
GAYLORD, E. P., M.D., Toledo, O.,	Hom. Med. Coll. of Penna., 1854.
GREELEY, GEO. H., M.D., Syracuse, N. Y.,	N. Y. Hom. Med. Coll., 1865.
HALL, EDWARD M., M.D., Fredericktown, O.,	Cleveland Hom. Med. Coll., 1871.
HAYWARD, MILTON P., M.D., Oberlin, O.,	Hom. Med. Coll. of Penna., 1857.
HILLER, F., JR., M.D., San Francisco, Cal.,	Hah. Med. Coll. of Philad'a, 1873.
HITCHCOCK, DEXTER, M.D., Norwalk, Conn.,	N. Y. Hom. Med. Coll., 1873.
HALL, JOHN B., M.D., St. Paul, Minn.,	Cleveland Hom. Med. Coll., 1862.

HUNT, JOHN B., M.D., Indianapolis, Ind.,	Cleveland Hom. Med. Coll., 1863.
HUNT, LEMUEL J., M.D., Covington, Ky.,	Pulte Med. Coll., Cincinnati, 1873.
HURD, EDWIN H., M.D., Rochester, N. Y.,	Geneva Med. Coll., N. Y., 1847.
JENNY, WILLIAM H., M.D., Kansas City, Mo.,	Cleveland Hom. Med. Coll., 1861.
JONES, GAIUS J., M.D., Grafton, O.,	Cleveland Hom. Med. Coll., 1872.
LEONARD, W. H., M.D., Minneapolis, Minn.,	Med. Dept. Yale College, 1853.
LESCOMB, PAUL D., M.D., Beaver Falls, Pa.,	Cleveland Hom. Med. Coll., 1866.
LUKENS, MIRRIKEN B., M.D., Cleveland, O.,	Cleveland Hom. Med. Coll., 1870.
MCCHESNEY, A. C., M.D., College Hill, O.,	Ohio Med. Coll., 1849.
MCDERMOTT, GEO. C., M.D., Warren, Pa.,	Cleveland Hom. Med. Coll., 1870.
MERA, HARRY P., M.D., Pottsville, Pa.,	Edinburgh University, 1857. Dublin University, 1858. Hah. Med. Coll. of Philad'a, 1869.
MORRILL, EDWIN C., M.D., Norwalk, O.,	Cleveland Hom. Med. Coll., 1866.
NORTON, CHAS. A., M.D., Portsmouth, N. H.,	Bowdoin Coll., 1860.
PARMELEE, MYRON H., M.D., Toledo, O.,	Hah. Med. Coll. of Chicago, 1870.
PATCHEN, GEO. H., M.D., Burlington, Iowa,	N. Y. Hom. Med. Coll., 1868.
PETTET, JONATHAN, M.D., Cleveland, O.,	Cleveland Hom. Med. Coll., 1869.
PHILLIPS, WM. A., M.D., Cleveland, O.,	Hom. Med. Coll. of Missouri, 1867.
PRINDLE, CLARENCE W., M.D., Grand Rapids, Mich.,	Hah. Med. Coll. of Chicago, 1871.
PURDY, W. S., DR.,	Licentiate, Tompkins Co. New York Med. Soc., 1833.
RUST, JAMES, M.D., Wellington, O.,	Cleveland Hom. Med. Coll., 1866.
ROBERTSON, EWING W., M.D., Cleveland, O.,	University of Michigan, 1854.
RUNNELS, ORANGE S., M.D., Indianapolis, Ind.,	Cleveland Hom. Med. Coll., 1871.
SCHATZ, WM. F., M.D., Columbus, O.,	Hah. Med. Coll. of Chicago, 1864.
SCHEURER, E. M., M.D., Clearfield, Pa.,	Hah. Med. Coll. of Philad'a, 1871.
SCHMUCKER FRANCIS R., M.D., Reading, Pa.,	N. Y. Hom. Med. Coll., 1873.
SCHMUCKER, ELHANAN Z., M.D., Reading, Pa.,	Hah. Med. Coll. of Philad'a, 1870. N. Y. Hom. Med. Coll., 1871.
SMITH, CHESTER, M.D., Iona, Mich.,	Cleveland Hom. Med. Coll., 1859.
STILSON, E. H., M.D., Keokuk, Iowa,	Hah. Med. Coll. of Philad'a, 1871.
TURNER, REUBEN F., M.D., Wheeling, W. Va.,	Cleveland Hom. Med. Coll., 1860.
VAN NORMAN, E. V., M.D., Springfield, O.,	Cleveland Hom. Med. Coll., 1870.
WARREN, H. ANNA, M.D., Emporia, Kan.,	Cleveland Hom. Med. Coll., 1863.
WATERS, MOSES H., M.D., Terre Haute, Ind.,	N. Y. Hom. Med. Coll., 1865.
WENZ, JAMES, M.D., Buffalo, N. Y.,	Hom. Med. Coll. of Missouri, 1869.
WEST, JAMES A., M.D., Geneseo, N. Y.,	Hah. Med. Coll. of Philad'a, 1868.
WHITFIELD, ISAIAH J., M.D., Grand Rapids, Mich.,	Cleveland Hom. Med. Coll., 1870.
WILLIAMS, WM K., M.D., Philadelphia, Pa.,	Hah. Med. Coll. of Philad'a, 1871.
WILSON, M. T., M.D., San Francisco, Cal.,	Hom. Med. Coll. of Penna., 1869.
WOODS, MARY A. B., M.D., Erie, Pa.,	Cleveland Hom. Med. Coll., 1864.
WOODYATT, WM. H., M.D., Chicago, Ill.,	Cleveland Hom. Med. Coll., 1869.

XXIII.

TREASURER'S REPORT.

DR. E. M. KELLOGG, TREASURER, IN ACCOUNT WITH THE AMERICAN INSTITUTE OF HOMŒOPATHY. CR.

1873. May 31.	By dues from Members and sale of Transactions during the past year, ...	$3660.00

1872. May 23.	To balance, ...	$223.65
" "	To telegraphing, ...	6.88
" 24.	Reporter's bill, ...	187.00
" 24.	Postage on Transactions of 1871, ...	96.50
" 27.	Expressage on Transactions of 1872, . .	55.30
June 20.	Rent of hall, ...	100.00
July 30.	Cash to Committee on World's Homœopathic Convention, ...	100.00
1873. May 8.	Cash paid Secretary for editing and printing Transactions, postage, and miscellaneous, ...	2425.00
" 8.	Bill for printing certificates, ...	45.50
" 30.	Engrossing certificates, ...	13.85
" 30.	Postage, envelopes, &c., ...	74.68
	Balance, ...	331.64
		$3660.00

XXIV.

REPORT

OF THE

COMMITTEE ON A HOMŒOPATHIC DISPENSATORY.

THE Committee on a Homœopathic Dispensatory expected to present the work complete and ready for publication at this meeting of the Institute. It is probable that this would have been done, had it not been for the illness and absence from the country of our Chairman, Dr. Carroll Dunham. Dr. Dunham had in charge, and we believe had nearly completed, his portion of the work, "The Foreign Literature." Your committee feel the loss of his labors very deeply, and would be glad to have associated with them Dr. Samuel Lilienthal, of New York, who, it is believed, would complete Dr. Dunham's portion of the work in a most satisfactory manner. Dr. McClatchey is engaged on the English and American Literature; Dr. Hering on Zoology; Dr. Allen on Botany; Drs. Mitchell and Rockwith on Chemistry; Drs. Boericke and Smith on Pharmacy.

Your committee therefore can only report progress, and promise to complete their work at the earliest possible date.

T. F. ALLEN, M.D.,
Acting Chairman.

XXV.

NECROLOGICAL REPORT.

By Henry D. Paine, M.D.,

Necrologist.

SAMUEL GREGG, M.D.

Dr. Samuel Gregg, the pioneer of homœopathy in New England, and one of the founders of the American Institute of Homœopathy, was born in New Boston, N. H., July 1st, 1799. His death occurred October 25th, 1872, at the age of 73 years. Although he never enjoyed the advantages of a collegiate training, yet, by studious habits in early life, he acquired a good education, and became a successful school teacher at eighteen.

As a physician, he graduated from the medical department of Dartmouth College in 1825, practiced medicine for a short time with Dr. John Stearns in Charlestown, Mass., and then settled in Medford, Mass., where, for fifteen years, he held a thriving and leading practice. But becoming dissatisfied with the working and results of the ordinary treatment according to methods then generally approved, he was induced to examine the claims of homœopathy, then newly introduced to the notice of the profession in this country.

The following is his own account of the special incidents of his conversion:

"During the winter of 1837–8 I had an interesting case in a patient* suffering from *tuberculosis pulmonum* in a scrofulous constitution, which I was satisfied I could not cure. At this

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* His own daughter.

time I saw two patients who had received homœopathic treatment from Dr. Federal Vanderberg, who was then practicing in New York. The allopathic Materia Medica was then being enlarged by the introduction of concentrated chemical preparations of drugs. As showing my entire ignorance of the preparation of homœopathic medicines, I distinctly recollect saying to those patients when they described the wonderful effects of the little pills, that a physician must be reckless who would prescribe a remedy capable of producing such results in so concentrated a form. But, at the solicitation of these friends, I concluded to take my patient to consult Dr. Vanderberg in New York. Although this physician did not at the time give me much encouragement of benefiting my patient, yet he gave me such a synopsis of the new school therapeutics as to excite in my mind a determination to examine the merits of the new theory of healing. I obtained all the books that were then published in English translations, viz., Hahnemann's Organon, the first edition of Hering's Domestic Practice, in two very small volumes, some small pamphlet expositions of Homœopathy, and the translation of Jahr's Manual by the N. A. Academy, which was then in press (the Repertory was not yet published); also, the 'Archives' of Paris, containing the reported cases of treatment by the homœopathic physicians of Paris for seven years. I also procured a few of the more general remedies, and commenced my investigation of the principles of therapeia. I soon after obtained a German case of medicines containing one hundred and twenty vials of the mother tinctures and first triturations. From these I began to make my own preparations, and have continued to prepare all that I have used ever since. In my early administration of homœopathic medicines I was under exceeding obligations to Dr. Vanderberg for counsel and assistance, for very often in my lonely explorations I was troubled, and whenever I applied to him I was sure to receive instruction by return of mail; and I trust I have not been unmindful of it towards my juniors. Thus I continued in my investigation. I had a reasonable share of patronage in my allopathic practice, for I do not know but I was as successful as most of my contemporaries, and when I told my patrons I had more confidence in the new system than in the

old, they were generally willing to abide my decision, and after having once made the experiment, I have since seldom found any one willing to return to the old school treatment of disease."

In November, 1840, Dr. Gregg removed to Boston, the better to meet the demands for the new and successful system. He soon acquired a large and remunerative practice, which he retained until his death.

As the pioneer of homœopathy in New England, his energy and enterprise very naturally gave him a leading position in the ranks which soon gathered around him; and his warm-hearted, generous nature caused him to be loved by those who listened to his counsels. Honest above all things else, and believing firmly in the great advance in the art of healing made through homœopathy, he necessarily became its uncompromising partisan and champion. But, while strong in his own convictions, and fearless in their defence when the principles or the practice of homœopathy were assailed, in the spirit of true charity he freely accorded to others the rights of opinion and action that he claimed for himself.

In 1840 he, with three others, formed the Homœopathic Fraternity, which subsequently expanded into the Massachusetts Homœopathic Medical Society, now the oldest continuous society of our school in America. He took a leading part in its discussions, and upon its incorporation in 1856 became its President.

He was one of the founders of this Institute in 1844, attending the convention for its formation in New York, and warmly interesting himself in its establishment and success. He served for many years on its Board of Censors, and was often on important committees, where his sound judgment, quick discernment, and impartiality could always be relied on. He was one of the most uniformly regular attendants at its meetings, having been present at every annual session, with not more than one exception, since its organization. At all our gatherings his presence was always anticipated as a feature of the programme. No face was more familiar to the members of the society; no presence awakened more general and spontaneous respect than his genial countenance and venerable figure as he quietly went out and in among us. To those who have been for years associated with him in this Institute, his unaccustomed absence from its delib-

erations cannot but occasion a feeling of peculiar sadness. So one by one the links are severed which bind us to the past, but the influence of such an example as that of our venerated friend will long remain to animate and encourage his surviving associates and successors.

Immediately following the announcement of his death a special meeting of the Massachusetts Homœopathic Medical Society was convened to take such appropriate action as the occasion required. About fifty members were in attendance.

Addresses were made by the Vice-President of the Society, Dr. J. H. Woodbury, Dr. H. L. Chase, Dr. B. H. West, Dr. J. C. Neilson, and others, expressing in fervent language the emotions of love for their late chief, and sorrow for his departure, that were in every heart.

The following remarks by DR. CHASE embody the sentiments, not only of those present on that occasion, but of all who enjoyed the privilege of acquaintance with our late colleague.

"The occasion which calls us together to-day is one of sorrow and sadness. The first President of this Society has been gathered to his fathers, and we are called to mourn his loss. To every member of this Society he was a friend; to some of us, more than a friend—a dear father. I can never forget the interest he manifested in me, when, more than twenty-five years ago, learning that I was inquiring into homœopathy, he sought me, extending to me an invitation to visit patients with him and witness the effects of homœopathic medication; nor the time when I was a member of his family, studying and working with him; nor those long years of unremitting kindness which have supervened. During all this time there has never occurred anything which has marred, in the least, the friendship which he first evinced; on the contrary, his many acts of kindness have filled me with respect, esteem and love for all that was beautiful in his character. My desire for information, and my calls upon him for professional assistance, were always met in the kindest manner and with the utmost promptitude,—his after inquiries showing the interest he felt in the patients, whatever their pecuniary circumstances or their station in life might have been.

"The same kindness and courtesy were invariably extended to

all his professional brethren. He was ever ready to extend the helping hand, to share the responsibility of a difficult case, to give his advice and the results of his long experience without reserve. More than all, he never sought his own aggrandizement, but covered the faults and foibles of others with the broad mantle of brotherly love and charity.

"To him, more than to any other, homœopathy is indebted for its rise, progress, and the position it occupies in this community to-day. He it was who stood up, literally alone, battling for the truth; and he has lived to see the single one grown to a multitude and become a power in the world.

"We all delighted to honor him, for we all loved him; and those honors he bore with the meekness and humility which belonged to a great mind. And now, as we are come to pay the last sad tokens of respect, it is fitting that we give a slight expression of the esteem in which we held him. I will therefore offer for your consideration the following resolutions:

"WHEREAS, Our beloved brother, our revered associate, our kind friend, he to whom we looked for counsel and advice, whose sympathizing heart was always open, whose hand was ever ready to assist, SAMUEL GREGG, M.D., has by our heavenly Father been called from his earthly labors; therefore,

"*Resolved*, That although we can never more have the joy of his earthly presence, yet his many kind deeds, his willingness to aid all who sought his counsel, his words of cheer when those around were desponding, his unselfish interest in the success of the young physician, his earnest desire to alleviate human suffering, his watchfulness and anxiety over those who intrusted themselves to his care, remain enshrined in our memories, never to be effaced.

"*Resolved*, That in his death homœopathy has lost one of its earliest, most ardent and devoted supporters, this Society one of its most honored members and brightest ornaments, his patients a near and dear friend as well as a skilful physician.

"*Resolved*, That we, as a Society and as individuals, extend our sympathy to the family of our late associate and friend, in this their sad bereavement, expressing the hope that they may be supported and sustained in this great affliction.

"*Resolved*, That these resolutions be spread on our records, and a copy transmitted to the family of the deceased."

After addresses warmly seconding the above resolutions, by Drs. West, Thayer, and others, they were adopted unanimously

by a standing vote, and the meeting adjourned to attend the funeral of the deceased.

At a meeting of the Boston Academy of Homœopathic Medicine, held October 28th, 1872, a detailed account of the last sickness of Dr. Gregg was read by Dr. Clapp, and resolutions of respect and sorrow were passed unanimously.

An event so nearly affecting a large part of the community was not allowed to pass unnoticed by the public press. Appreciative obituary notices appeared in the daily and other newspapers of Boston, and in the various medical journals of our school throughout the country.

Few men who have deserved so much, have been less conscious of their merits than the subject of this memoir.

CHARLES C. FOOTE, M.D.

Charles Cheeney Foote, A.B., M.D., was the son of Dr. Elial T. and Anna Cheeney Foote, and was born in Jamestown, N. Y., September 5th, 1825.

Strong and athletic during his youth, he escaped the sickness usual to children, and grew to manhood without having experienced any severe illness.

He was fitted for college at the Jamestown Academy and the Willisstown, Massachusetts, Seminary, and graduated from Union College, in 1849, in excellent standing.

He subsequently read medicine with his father in New Haven. He attended a course of medical lectures in New York, and a second course in Jefferson Medical College, Philadelphia, from which college he graduated in 1851.

Immediately upon his graduation he commenced to practice with his father in New Haven, and after remaining with him two years, opened a separate office in that city, devoting himself wholly to his profession. He soon drew about him a large and daily increasing practice, and ultimately had all he could attend to, and much of it among the most discriminating and influential families of the city.

His nature was kind and genial. He was strictly attentive to his patients, and they were sure of his sympathy, his presence inspiring confidence and making him a welcome visitor.

He usually enjoyed good health, and seldom took a vacation; and except on one or two occasions, he never was absent, even for one week at a time, during twenty years' practice.

As an obstetrician he had a high reputation, and enjoyed an extensive practice in that branch, and was frequently called in consultations.

He was a member of the Connecticut State Homœopathic Medical Society, and of the American Institute, from the year 1851.

His death was sudden, and has brought poignant grief to his aged and revered father, to a beloved wife and children, and to an immense concourse of friends, as well as being a loss to the community at large.

He had visited his patients as usual in the forenoon of the day of his death, and had returned to his office in his usual health. A little after one o'clock he was called to dinner, and sat down to the table with the family and a relative of his wife. After asking the blessing as was his custom, he commenced carving and helping the family to food, and had not finished serving them when he was observed to put his hand to his mouth from which blood was seen to flow. He arose from the table and said to his wife, "Give me some salt." She gave him some, and he went up-stairs with the aid of his wife and her relative to a bedroom, and sat down on the side of the bed. The blood still flowed from his mouth, and he said in a broken voice to those around, "Don't be alarmed." He soon commenced to strangle, while the blood gushed from his mouth, and in a few moments he expired without a struggle, and before any physician arrived.

This sudden and impressive event took place on the 9th of November, 1871, and was appropriately commented on by the press of his city as an occurrence of general and public interest.

As a Christian, a gentleman, and a physician, he has a record enjoyed only by the honored few, and his loss will be deeply felt, not only by his bereaved family, but also by his many patients, who can no longer look to his skilful hand to relieve them from their sufferings, and as well, by the community who knew and loved him.

He was elected a member of the Institute in 1851, the year of

his medical graduation, and remained faithful to its principles throughout his professional life.

ALVIN SHATTUCK, M.D.

Dr. Alvin Shattuck, of Buffalo, died in that city, Friday, August 16th, 1872. The *Commercial Advertiser*, of Buffalo, thus records his death.

"We have to-day to chronicle the death, after a painful illness, borne with Christian fortitude, of a most worthy citizen, and skilful and prominent physician and surgeon, Dr. Alvin Shattuck; and we believe all who have known him as a neighbor or friend, or have had occasion to call to their aid his professional skill, will fully indorse the warmest encomiums upon his character.

"Dr. Shattuck was born in Vermont, April 12th, 1821, and in his earlier years, from 1839 to 1842, was in the naval service of the United States, in the South Pacific. He finally resolved upon following the medical profession, and graduated at the Ohio Medical College, Cincinnati, in 1848.

"He commenced practice in Westfield, Chautaque County, N. Y., from whence, in 1857, he removed to Buffalo. He here found a wider field, and through his skill, and the reliability that could be placed upon his attendance at all seasons, he won to himself a large and lucrative practice, which, had his life been spared, would without doubt have greatly increased."

He was at the time of his death the surgeon and operative obstetrican of our school in Buffalo, and though not having the early advantages of many of our physicians, yet by his study and continual reading up to the time of his death, he had made himself respected and honored by all his associates.

A distinguishing trait as a man and physician was his abhorrence of all trickery, both in practice with his patients and in competition with his fellows.

Familiar with all operations in obstetrics, our school relied upon him in all cases requiring skill in the use of instruments and in the exercise of great muscular strength. Well posted and a skilful operator, he was fast acquiring a reputation that would have given him a large share of that branch of work.

He was ill for many months, and finally died of cancer of the rectum, though he had suffered from cardiac hypertrophy for from ten to fifteen years. He was elected a member of the Institute in 1859.

JEHIEL ABBOTT, M.D.

Of the early life of Dr. Abbott we have no particulars, except that he was born in Tolland, Conn., September 3d, 1795.

He studied with Dr. Woodward, of Wethersfield, Conn. He received no collegiate education, but graduated from the medical school at Yale, though in what year we are not informed.

He commenced the practice of homœopathy about the year 1840, in spite of great opposition, but won his way to a large and very successful practice, and became the leading physician in all the region about Westfield, Mass., as well as in the town.

He was a most exemplary man, and universally beloved. While a resident of Westfield he entered considerably into public life, and interested himself warmly in the affairs of the town. He served two terms in the Senate of his State, and distinguished himself for his faithful labor and political honesty in various positions of public trust.

He was not only the kind physician, but the trusty friend, and contributed both to the relief of the bodily ailments and the pecuniary needs of many of his patients.

He died in Westfield, Mass., September 23d, 1872, aged 77 years, having been a member of the Institute since 1851.

HENRY BAETHIG, SR., M.D.

The subject of this notice was educated for the calling of a clergyman, in which vocation he exercised his talents and labors with much success in his native country, until, having attracted the attention of the government by his too openly expressed republican principles, he left Germany and sought a home in the United States.

In this country he pursued the business of an apothecary, but his literary and scientific acquirements, and his bold and vigorous style of writing, soon brought him into notice as an able and attractive correspondent of the German newspapers.

It was not till nearly 58 years of age that he became a convert to, and a student of, homœopathy. Having become awakened to the importance of this great medical reformation, he was not deterred by his advanced years from undertaking its prosecution. He disposed of his business, became a student of the new method, and was, in due time, and after a thorough examination, licensed as a practitioner by the Erie County Homœopathic Medical Society of the State of New York. He continued in the active pursuit of his new profession, winning the confidence of the public and the respect and esteem of his colleagues, until his death in Buffalo, by disease of the heart, December 5th, 1871. He was elected a member of the Institute in June, 1869.

WILLIAM H. H. SISSON, M.D.

Dr. William H. H. Sisson, of Omaha, Neb., died in that city January 25th, 1873, after an illness of thirteen days, the fatal result of an attack of typhoid pneumonia. He was a brother of our associate, Dr. E. R. Sisson, of New Bedford, Mass., and was rapidly achieving an enviable reputation as a capable and successful physician, when his early decease deprived the public of his services and the profession of an active, zealous, and competent representative of the principles and practice of homœopathy. His membership in the Institute dates from 1867.

At a special meeting of the homœopathic physicians of Omaha, the following preamble and resolutions, in reference to the death of Dr. Sisson, were adopted:

WHEREAS, It has pleased our Heavenly Father, in his infinite wisdom, to remove by death our friend and professional brother, W. H. H. Sisson, M.D., in the midst of a career so useful; therefore be it

Resolved, That we deeply mourn the loss so suddenly come upon us, by which we are deprived of an able physician, and a faithful disciple of the principles he so satisfactorily maintained.

Resolved, That we tender the bereaved friends all the consolation that human sympathy can bestow. With the widow of our deceased brother do we particularly sympathize, and express our admiration of the true spirit of an affectionate wife, as shown during the many anxious hours of a fatal sickness.

Resolved, That a copy of these resolutions be furnished the city papers and

medical journals for publication; also that a copy be presented the friends of the deceased.

O. S. WOOD, President.

E. F. HOYT, Secretary.

EZEKIEL LOVEJOY, M.D.

Dr. Ezekiel Lovejoy was born in Stratford, Connecticut, on the 6th of July, 1803. He graduated with honors at Union College, New York, in 1823. After graduating he devoted himself to the study of medicine, in the city of New York, and under the instruction of Drs. Mott and Hosack, soon prepared himself for his degree.

Soon after receiving his diploma he was appointed surgeon in the navy of Buenos Ayres, and in that position saw considerable service, and had opportunities of practicing his profession which gave him valuable experience.

About the year 1828, he established himself in Owego, N. Y., which has been his residence for nearly half a century, there having been an interval of two years which he passed in New York City in the practice of his profession, and achieving remarkable success.

At an early period in the history of homœopathy, Dr. Lovejoy carefully examined the system, and his investigation led him to approve of and adopt it. Indeed, from his high social and intellectual standing in the community, he may justly be considered the man who first gave this school of medicine popularity in that part of the State.

Dr. Lovejoy was a thorough gentleman of the old school. He possessed a nature where sterling honesty and integrity went hand in hand with courtesy, benevolence, and other virtues which go to make up the highest type of manhood.

Eminent in his profession, and possessing rare skill, he seemed to aim to bestow it for the benefit of suffering humanity rather than to use it as a means of acquiring wealth.

He was taken ill early in June, while on his way to visit a patient. His disease was dyspnœa, accompanied with severe pain in the region of the heart. Recovering in a few moments, he persevered and reached his destination, when a second attack

prostrated him so entirely that he was obliged to be carried home. From that time his disease increased, and was aggravated by the addition of an old dyspeptic trouble, which asserted itself with such obstinacy that he was unable to take any nourishment, and after seven weeks of terrible suffering he breathed his last.

His death was a triumph of Christian faith. Through all his distressing sickness, his calm confidence and assured trust in a living Saviour were unfaltering. Thus he passed away, on August the 15th, 1872, in the 69th year of his age.

EPHRAIM S. WILLARD, M.D.

Dr. Ephraim S. Willard was born in Lancaster, Mass., June 12th, 1815. He attended lectures at the Medical College at Castleton, Vt., but as he was inclined toward homœopathy, did not graduate, but commenced practice without a diploma. Afterwards he attended lectures at the Homœopathic Medical College of Pennsylvania, and graduated in 1860. He then located in Cambridge, Mass., but in 1863 removed to Boston, where he was in active practice up to the time of his death. He became a member of the American Institute of Homœopathy in 1869. He was also a member of the Massachusetts Homœopathic Medical Society, and of the Boston Homœopathic Medical Society. He had a wide range of practice, particularly in the surrounding towns. Modest and retiring, never desiring to push himself into notice, always responsive to the call of the suffering, his ready sympathy and kindly interest made his patients his warm personal friends. Of an extremely sensitive and delicate temperament, singularly free from professional pride and jealousy, he inspired the warm love of those who knew him best, and the grateful esteem of those less fortunate. He was a close student, spending much time on metaphysics and abstruse subjects in general, though never making any mention of his thoughts upon any subject until he had fully matured and tested them by time.

On Sunday, the 13th of April, 1873, he complained of sore throat, and thought it best not to go out, besides feeling very

much exhausted. On Monday he was visited by a brother physician, who advised him to keep quiet for a few days and rest, since that was what he seemed most to need. On Tuesday he was found to be completely covered by the eruption of scarlatina, and his throat symptoms were very much worse. He grew worse up to Wednesday night, when for a few hours it was feared he could not live, but he finally rallied, and on Friday morning seemed much better, his throat troubling him but little and the eruption gradually disappearing. At noon of this day he sat up and asked for some gruel, which he ate with a relish and without difficulty. He lay down saying he would take a nap, but he never awoke again, passing away quietly at about 3 o'clock P.M., without a single struggle. Prior to his illness he had been attending some patients with scarlatina, and undoubtedly because of his worn-out condition from overwork was thus made subject to the contagion. He leaves a wife and three children, besides numerous friends to mourn his loss. He was fifty-three years of age at the time of his death.

XXVI.

REPORT

OF THE

COMMITTEE ON THE WORLD'S HOMŒOPATHIC CONVENTION.

THE Committee on the World's Homœopathic Convention respectfully present the following report:

The committee have held two meetings during this session of the Institute. At these meetings, in addition to a thorough discussion of the whole subject by the committee, the following business was transacted.

The resignation of Dr. Carroll Dunham, of New York, as a member and chairman of the committee, on the ground of illness and absence in Europe, was received. It was the unanimous opinion of the committee, that Dr. Dunham's resignation should not be accepted, and that the office of vice-chairman should be created, the incumbent of that office to act as chairman of the committee during Dr. Dunham's absence. It was then unanimously voted that the resignation of Dr. Dunham be laid on the table, that the office of vice-chairman be created, and that Dr. I. T. Talbot, of Boston, be vice-chairman of the committee.

Dr. O. S. Wood, of Omaha, Neb., was appointed a member of the committee, vice Dr. W. H. H. Sisson, deceased, and Dr. E. C. Franklin, of St. Louis, in place of Dr. T. G. Comstock, who had declined to serve on account of absence from home.

The following additional appointments to membership of the committee were made:

J. H. JONES, M.D.,	Bradford, Vt.
GEORGE W. SWAZEY, M.D.,	Springfield, Mass.
HENRY D. PAINE, M.D.,	New York.
G. W. POPE, M.D.,	Washington, D. C.
J. H. WAY, M.D.,	Nebraska City, Neb.
I. LUKENS, M.D.,	Newport, Del.
E. J. FRAZER, M.D.,	San Francisco, Cal.
J. M. SCHLEY, M.D.,	Savannah, Ga.
A. E. HIGBEE, M.D.,	Red Wing, Minn.

Dr. R. J. McClatchey requested that the Executive Committee, consisting of physicians residing in Philadelphia, be increased by the addition of Drs. A. R. Thomas and Thomas Moore, of Philadelphia. On motion, these gentlemen were added to the Executive Committee.

A committee, consisting of Drs. Talbot, McClatchey, and Dudley, was appointed to ascertain whether provision would be made by the Centennial Commission, for the sessions of the various scientific and other bodies which are expected to convene in Philadelphia during the Centennial Exhibition, and report to the General Committee.

The Executive Committee was instructed to prepare estimates of and devise a plan for raising the amount of money needed for the convention, and submit the same to the members of the committee, for amendment or approval, and subsequently to put the plan into operation.

A communication was received from the British Homœopathic Association, announcing that Drs. William Bayes and Richard Hughes had been appointed a committee to confer with the Committee on the World's Homœopathic Convention, in relation to the convention. The communication expressed the most cordial interest in the convention and an earnest hope for its complete success.

For the Committee,

P. DUDLEY,
Secretary.

XXVII.

REPORT

OF THE

COMMITTEE ON HOMŒOPATHIC COLLEGES.

GENERAL REPORT OF THE COMMITTEE.

By David Thayer, M.D., of Boston, Mass.

The Committee on Homœopathic Colleges respectfully report, that in the United States there are ten homœopathic colleges, viz., one in Philadelphia, two in New York City, one in Cincinnati, one in Cleveland, one in Detroit, one in St. Louis; one in Chicago; the two Professorships of Theory and Practice and of Materia Medica, in the University of Michigan, at Ann Arbor, we also name as constituting a homœopathic college; and there is one in Boston already established in connection with Boston University.

The number graduated at these colleges this year is *two hundred and four;* while the whole number of matriculants is about *six hundred.* The Hahnemann Medical College of Philadelphia graduated forty-seven; the New York Homœopathic Medical College thirty-five from its ninety-eight matriculants; and the diploma of the New York Ophthalmic Hospital was awarded to five, while twenty-two received the certificate of the Junior Department, after having passed the requisite examination. The New York Homœopathic Medical College for Women conferred the degree of M.D. on nine of its members.

The Pulte Medical College in Cincinnati, at its first session,

graduated ten; the Cleveland Homœopathic Hospital College, from its ninety-five matriculants, graduated thirty-four; the Detroit Homœopathic College graduated nineteen; the Homœopathic Medical College at St. Louis graduated ten; the Hahnemann Medical College of Chicago graduated forty.

It is estimated that the number of students with proclivities to homœopathy in the allopathic colleges is greater than in any former year.

Boston University has established a homœopathic college in its medical department. This act of the trustees was done without a dissenting vote. The University has also come into possession of the charter, all the property and franchises, of the New England Female Medical College, which will hereafter be a homœopathic college—thus opening the medical department of Boston University to both sexes.

While this number of our colleges exhibits in some degree the favor with which our school of practice is held in the communities in which they are located, we regret that their endowment is not adequate to the demands of the times. Until this embarrassing circumstance is relieved, these schools cannot attain the rank of some of the colleges of the old school of practice.

The conflict which has been carried on between the homœopathists of Michigan and the regents of the University of that State, has culminated at length in favor of homœopathy. And if the two chairs, one of Theory and Practice and the other of Materia Medica, be well filled, we see no reason why that institution may not yet be raised to the full dignity of a homœopathic college.

After much careful consideration, your committee are of opinion that all our homœopathic medical colleges should provide,

1. For three courses of lectures, each of twenty-four weeks' duration, and these courses should be named the Junior, Middle, and Senior Classes.

2. That admission to the Junior Class should require previous preparation and training up to a fixed standard, as in classical institutions; and that this preparation shall include some knowledge of both the Greek and Latin languages.

3. That students may enter either class, provided a competent examination shows their fitness.

4. That examinations for graduation shall be conducted in writing, the original of all the questions and answers being preserved in the archives of the college for future reference; no candidate being allowed to pass who does not properly answer seven-tenths of all the questions.

5. That certificates of study during three years shall be required of every student, before he shall be admitted to the final examination for the degree of M.D.

In order to make the graded course an *entire* success, it must be unanimously adopted by all the homœopathic colleges in the country, and to this end we commend it to the careful consideration of the American Institute, hoping for its hearty approval.

Experience in the colleges where the graded course of studies has been used, and where the preliminary training has been required before admission to the junior class, has shown satisfactory results.

While we would recommend greater thoroughness in study, and longer time in preparation, we would not in any way embarrass the aspirants for active service in the field, by undue requirements in the curriculum, yet we are of opinion that it is feasible and very desirable to make obligatory a great deal more of laboratory and field work, viz., in microscopy, in chemical manipulations and analysis, in minor and operative surgery, and in botany (with lectures), and even in the elements of geology, besides the usual dissections.

The winter course is, perhaps, too short for all these, hence a month before and a month after the usual lectures should be employed in these pursuits, or optionally at extra hours during the regular session.

At all events, graduates should show evidence of having pursued these somewhat. Beside these, it is believed that a vigorous official *quiz*, obligatory on all, or at least on second course students, would be essential. It must and will always tell on final examination. Again, without making classical education a *sine*

qua non, we would make a standing offer of prizes for the best preliminary education. Medical prizes have also a good effect.

We would further suggest that, as none of our colleges are richly endowed, the faculty should be a separate and co-ordinate branch, which, together with the trustees of the university or classical colleges with which they may be connected, shall constitute the government.

The faculty must either have a good income or have a democratic voice in the government, and be removable only by impeachment, or no set of average physicians will make the requisite sacrifice for many years together, hence the government must mutate constantly, as has been already experienced in some of our colleges.

In conclusion, your committee would respectfully recommend that a committee be appointed, to be joined by the professors of the several colleges, to consider these several suggestions, with instructions to report on them, and to recommend a curriculum of studies suited to all our colleges.

For the committee.

DAVID THAYER, M.D.,
Chairman.

THE RELATIONS OF THE INSTITUTE TO MEDICAL SCHOOLS.

BY J. P. DAKE, M.D., OF NASHVILLE, TENN.

It may be well to have clearly defined, in our published proceedings, the relations sustained by this Institute toward the medical schools of the country.

Applicants for membership are required in the by-laws to satisfy the Board of Censors that they "have pursued a regular course of medical studies, according to the requirements of the existing medical institutions of our country."

A diploma from any such institution has generally been regarded as evidence that the "regular course" has been pursued; that the applicant presenting it has studied medicine for three years at least; that he has attended two full courses of lectures, and been examined and approved by a competent medical faculty, or

that the applicant, having attended some lectures, perhaps one course, and been in successful and reputable practice for several years, has received a special diploma from a medical college.

But it has not been the practice of the Institute, nor would it be safe, to take the diploma of every medical institution in the land.

While the Institute claims no censorship, no immediate control over medical colleges, it must not, it cannot shut its eyes to obvious and serious defects in them, especially if the faculties therein should be made up of medical men below the standard and pattern set up for its own membership.

If it is shown, in opposition to the election of a candidate, that his compliance with the customary medical requirements of the country is proved only by a diploma from an institution whose faculty is made up, in part or whole, of men guilty of unprofessional conduct, or of men notoriously deficient in medical education; or by a diploma from a college in the habit of "selling diplomas," giving them for money, and not upon proper qualifications, the Institute can and must go back of the diploma and ask for better evidence.

Again, the Board of Censors must require evidence, in the form of a certificate, signed by three members of the Institute, that the applicant "sustains a good moral character and general standing."

And further, the Censors, if not satisfied with the college diploma and the certificate of the three members, are authorized and required to examine the applicant upon "the theory and practice of homœopathy."

So far, then, as the Institute is asked to take the diplomas of medical schools as evidence of qualifications in applicants for membership, so far it has the right and must exercise the duty of considering whether such schools are properly organized and managed for instructing and qualifying persons to practice the healing art.

Thus indirectly this body may and should exert an influence upon the medical institutions of the country, fostering those that are worthy, and discountenancing those that do not come up to a proper standard.

Should any school fill its chairs with incompetent men, or otherwise fail to gain professional favor, as a society we can only leave it to find its own level and ultimate failure.

Nor can the Institute act as a judge upon the wisdom or expediency of increasing or lessening the number of schools, as the ordinary principles of demand and supply, deterioration and improvement must govern in all such undertakings.

THE UNIVERSITY OF THE STATE OF NEW YORK.

By J. P. Dake, M.D., of Nashville, Tenn.

At the last meeting of the Institute the Committee on Legislation reported the passage of a law, in the Legislature of New York, directing the regents of the University of that State to appoint one or more boards of examiners in medicine, corresponding with the different State organizations, each board to consist of not less than seven members, who shall, as ordered by the Chancellor, examine candidates for the degree of doctor of medicine in that University, under certain conditions and in certain ways, fully stated in the text of the law appearing on pp. 128–9 in Transactions of 1872.

This important step deserves more than a mere mention. It tells of the march of freedom over the barriers of bigotry, and the dawning of a better day for the cause of learning and truth.

We can here barely mention the leading points gained.

1. Freedom of students to select for themselves a medical creed and system of practice, and a fair examination in them by high and competent authority.

2. Freedom of students to select the ways of obtaining medical learning as well as their instructions therein.

3. Examinations without bias on account of instructions or mode or place of study.

4. Examinations uninfluenced and unembarrassed by any spirit of rivalry, such as may exist among schools in the direction of patronage.

5. A diploma equally good for all purposes, whether received

through the homœopathic or the allopathic board by the impartial and high authority of the State regents.

6. A diploma, covering a high grade of scholarship, based entirely upon the merits of the candidate, as shown in a full and fair examination, each question and answer in which must be a matter of permanent record.

Upon application of the Homœopathic Medical Society of the State, the regents appointed the following physicians in November as the Homœopathic Board of Examiners:

John F. Gray, LL.D., M.D., President, and Erastus A. Munger, M.D., William H. Watson, A.M., M.D., Henry B. Millard, A.M., M.D., William S. Searle, A.M., M.D., Frank L. Vincent, A.M., M.D., Horace M. Paine, A.M., M.D., Henry N. Avery, A.M., M.D., and John A. McVicar, A.M., M.D.

We are not informed as to when or how examinations for a diploma are to be conducted.

XXVIII.

REPORT

OF THE

COMMITTEE ON CREDENTIALS.

CLEVELAND, June 5th, 1878.

TO THE MEMBERS OF THE AMERICAN INSTITUTE OF HOMŒOPATHY:

Your Committee on Credentials would respectfully submit the following report.

MEMBERS PRESENT AT THE TWENTY-SIXTH SESSION OF THE AMERICAN INSTITUTE OF HOMŒOPATHY,

JUNE, 1878.

WM. P. ARMSTRONG, M.D., Paris, Ill.
G. D. ALLEN, M D., Portland, Mich.
T. F. ALLEN, M.D., New York City.
G. W. BOWEN, M.D., Ft. Wayne, Ind.
W. L. BREYFOGLE, M.D., Louisville, Ky.
C. A. BROOKS, M.D., Clinton, Mass.
T. B. BENEDICT, M.D., Ionia, Mich.
A. H. BOTSFORD, M.D., Grand Rapids, Mich.
A. A. BANCROFT, M.D., Lansing, Mich.
B. F. BAILEY, M.D., Lansing, Mich.
T. L. BROWN, M.D., Binghamton, N. Y.
W. J. BRYAN, M.D., Corning, N. Y.
T. C. BRADFORD, M.D., Cincinnati, Ohio.
H. H. BAXTER, M.D., Cleveland, Ohio.
E. C. BECKWITH, M. D., Zanesville, Ohio.
S. R. BECKWITH, M.D., Cincinnati, Ohio.
H. F. BIGGAR, M.D., Cleveland, Ohio.
J. D. BUCK, M.D., Cincinnati, Ohio.
H. H. BARTLETT, M.D., Geneva, Ohio.
F. W. BOYER, M.D., Pottsville, Pa.
J. C. BURGHER, M.D., Pittsburg, Pa.
N. F. COOKE, M.D., Chicago, Ill.
J L. CLARK, M.D , Fall River, Mass.
S. M. CATE, M.D., Salem, Mass.
LUKE CORCORAN, M.D., Springfield, Mass.
C. H. CARPENTER, M.D., Troy, N. Y.

LYMAN CLARY, M.D., Syracuse, N.Y.
SARA B. CHASE, M.D., Brownhelm, Ohio.
C. T. CANFIELD, M.D., Titusville, Pa.
DAVID COWLEY, M.D., Wilkins P. O., Pa.
J. F. COOPER, M.D., Alleghany City, Pa.
J. A. CLOUD, M.D., Philadelphia, Pa.
T. C. DUNCAN, M.D., Chicago, Ill.
E. H. DRAKE, M.D., Detroit, Mich.
W. DANFORTH, M.D., Chicago, Ill.
J. A. DUNNING, M.D., Corry, Pa.
PEMBERTON DUDLEY, M.D., Philadelphia, Pa.
J. P. DAKE, M.D., Nashville, Tenn.
I. N. ELDRIDGE, M.D., Flint, Mich.
JENNIE ENSIGN, M.D., New York City.
C. D. FAIRBANKS, M.D., Ottawa, Ill.
CHAS. H. FARNSWORTH, M.D., East Cambridge, Mass.
E. C. FRANKLIN, M.D., St. Louis, Mo.
E. W. FISH, M.D., Cincinnati, Ohio.
WM. GALLUPE, M.D., Bangor, Me.
B. F. GRANT, M.D., Bath, N. Y.
R. R. GREGG, M.D., Buffalo, N. Y.
EDWARD P. GAYLORD, M.D., Toledo, Ohio.
O. B. GAUSE, M.D., Philadelphia, Pa.
J. G. GILCHRIST, M.D., Tidioute, Pa.
GEO. A. HALL, M.D., Chicago, Ill.
JAS. GEORGE HUNT, M.D., Covington, Ky.
W. H. HUNT, M.D., Covington, Ky.
DANIEL HOLT, M.D., Lowell, Mass.
A. E. HIGBEE, M.D., Red Wing, Minn.
E. H. HURD, M.D., Rochester, N. Y.
E. M. HALL, M.D., Fredericktown, Ohio.
J. G. HEATON, M.D., Alliance, Ohio.
W. F. HOCKING, M.D., Cleveland, Ohio.
MILTON P. HAYWARD, M.D., Oberlin, Ohio.
JOHN HALL, M.D., Toronto, Ontario.
W. H. JENNEY, M.D., Kansas City, Mo.
E. D. JONES, M.D., Albany, N. Y.
G. J. JONES, M.D., Grafton, Ohio.
R J. JOHNSON, M.D., Ravenna, Ohio.
E. M. KELLOGG, M.D., New York City.
R. LUDLAM, M.D, Chicago, Ill.
W. H. LOUGEE, M.D., Lawrence, Mass.
S. LILIENTHAL, M.D., New York City.
M. B. LUKENS, M.D., Cleveland, Ohio.
RICHARD LEWIS, M.D., Philadelphia, Pa.
P. D. LISCOMB, M.D., Beaver Falls, Pa.
MARTIN MAYER MARIX, M.D., Denver, Col.
F. R. MCMANUS, M.D., Baltimore, Md.
H. V. MILLER, M.D., Syracuse, N. Y.
HARRY P. MERA, M.D., Rochester, N. Y.
R. E. MILLER, M.D., Oxford, N. Y.
J. H. MCCLELLAND, M.D., Pittsburg, Pa
R. J. MCCLATCHEY, M.D., Philadelphia, Pa.
G. C. MCDERMOTT, M.D., Warren, Pa.
C. A. NORTON, M.D , Portsmouth, N. H.
L. E. OBER, M.D., La Crosse, Wis.
CORNELIUS ORMES, M.D., Jamestown, N. Y.
J. B. OWENS, M.D., Lebanon, Ohio.
WM. OWENS, M.D., Cincinnati, Ohio.
L. PRATT, M.D., Wheaton, Ill.
C. PEARSON, M.D., Mt. Pleasant, Iowa.
G. M. PEASE, M.D., Boston, Mass.
T. F. POMEROY, M.D., Detroit, Mich.

C. M. PRINDLE, M.D., Grand Rapids, Mich.
W. S. PURDY, M.D., Corning, N. Y.
MYRON H. PARMALEE, M.D., Toledo, Ohio.
JONATHAN PETTET, M.D., Cleveland, Ohio.
WM. A. PHILLIPS, M.D., Cleveland, Ohio.
JOHN S. PFOUTS, M.D., Wilkesbarre, Pa.
GEO. H. PATCHEN, M.D., Burlington, Iowa.
ORANGE S. RUNNELS, M.D., Indianapolis, Ind.
E. W. ROBERTSON, M.D., Cleveland, Ohio.
R. B. RUSH, M.D., Salem, Ohio.
J. S. RANKIN, M.D., Pittsburg, Pa.
F. R. SCHMUCKER, M.D., Reading, Pa.
CHESTER SMITH, M.D., Portland, Mich.
H. E. STONE, M.D., Fair Haven, Conn.
A. E. SMALL, M.D., Chicago, Ill.
GEO. N. SEIDLITZ, M.D., Keokuk, Iowa.
GEO. W. SWAZEY, M.D., Springfield, Mass.
MARY J. SAFFORD, M.D., Boston, Mass.
B. E. SAWYER, M.D., Haverhill, Mass.
H. C. STEPHENSON, M.D., Lowell, Mich.
JACOB G. STREETS, M.D., Bridgeton, N. J.
EMMA SCOTT, M D., New York City.
T. FRANKLIN SMITH, M.D., New York City.
CHARLES SUMNER, M.D., Rochester, N. Y.
W. E. SAUNDERS, M.D., Cleveland, Ohio.
JOHN C. SANDERS, M.D., Cleveland, Ohio.
N. SCHNEIDER, M.D., Cleveland, Ohio.
W. F. SCHATZ, M.D., Columbus, Ohio.
CHAS. A. STEVENS, M.D., Scranton, Pa.
I. T. TALBOT, M.D., Boston, Mass.
R. F. TURNER, M.D., Wheeling, W. Va.
CHAS. VASTINE, M.D., St. Louis, Mo.
E. V. VAN NORMAN, M.D., Springfield, Ohio.
H. B. VAN NORMAN, M.D., Cleveland, Ohio.
WM. VON GOTTSCHALK, M.D., Providence, R. I.
G. H. WILSON, M.D., West Meriden, Conn.
MOSES H. WATERS, M.D., Terre Haute, Ind.
H. ANNA WARREN, M.D., Emporia, Kan.
I. J. WHITFIELD, M.D., Grand Rapids, Mich.
F. WOODRUFF, M.D., Ann Arbor, Mich.
O. S. WOOD, M.D., Omaha, Neb.
WM. WRIGHT, M.D., Brooklyn, N. Y.
WM. H. WATSON, M.D., Utica, N.Y.
A. R. WRIGHT, M.D., Buffalo, N. Y.
JAMES A. WEST, M.D., Geneseo, N. Y.
W. WEBSTER, M.D., Dayton, Ohio.
THOS. P. WILSON, M.D., Cincinnati, Ohio.
C. C. WHITE, M.D., Columbus, Ohio.
A. WORTHINGTON, M.D., Cincinnati, Ohio.
MARY A. B. WOODS, M.D., Erie, Pa.
L. H. WILLARD, M.D., Alleghany City, Pa.
J. J. YOULIN, M.D., Jersey City, N. J.

The following homœopathic physicians, not members of the Institute, were present as visitors, viz.:

J. F. FURLONG, M.D., Ohio.
C. F. FISHER, M.D., Kansas.
EDWIN GILLARD, M D., Ohio.
C. HICKOX, M.D., Ohio.
C. F. MITCHELL, M.D., New York.
H. W. OSBORNE, M.D., Ohio.
WM. ROSE, M.D., Ohio.
C. J. WELLS, M.D., Mich.
LEO W. SAPP, M.D., Ohio.
THOMAS YOUNG, M.D., Ohio.

These represent the States as follows:

Colorado,	1	Nebraska,	1
Connecticut,	2	New Jersey,	2
Illinois,	9	New Hampshire,	1
Indiana,	2	New York,	24
Iowa,	8	Ohio,	33
Kansas,	1	Pennsylvania,	22
Kentucky,	3	Rhode Island,	1
Maine,	1	Tennessee,	1
Maryland,	1	Wisconsin,	1
Massachusetts,	12	West Virginia,	1
Michigan,	14	Ontario,	1
Minnesota,	1		
Missouri,	8	Total,	141

ORGANIZATIONS REPRESENTED.

NATIONAL AND STATE SOCIETIES.

Connecticut Homœopathic Medical Society.

HENRY E. STONE, M.D., Fair Haven.
GEORGE H. WILSON, M.D., West Meriden.

Illinois State Homœopathic Medical Society.

N. H. BURR, M.D.
R. LUDLAM, M.D., Chicago.
A. E SMALL, M.D., Chicago.
D. S. SMITH, M.D., Chicago.
S. P. COLE, M.D., Chicago.
G. W. FOOTE, M.D., Galesburg.
L. PRATT, M.D., Wheaton.
H. PEARCE, M.D.
E. M. MCAFFEE, M.D., Mt. Carroll, Ill.

Iowa State Homœopathic Society.

G. N. SEIDLITZ, M.D., Keokuk.

Kansas State Homœopathic Medical Society.

CHARLES E. FISHER, M.D., Wichita, Kansas.
W. H. JENNEY, M.D., Kansas City, Mo.

Maine State Homœopathic Medical Society.

SUMNER H. BOYNTON, M.D.
WILLAM GALLUPE, M.D., Bangor.

Massachusetts State Homœopathic Medical Society.

S. M. CATE, M.D., Salem.
C. H. FARNSWORTH, M.D., E. Cambridge.
G. M. PEASE, M.D., Boston.
G. W. SWAZEY, M.D., Springfield.

Michigan State Homœopathic Medical Society.

A. A. BANCROFT, M.D., Lansing.
I. N. ELDRIDGE, M.D., Flint.

Minnesota State Homœopathic Medical Society.

A. E HIGBEE, M.D., Red Wing.

New Jersey State Homœopathic Medical Society.

J. J. YOULIN, M.D., Jersey City.

New York State Homœopathic Medical Society.

T. FRANKLIN SMITH, M.D., New York City.
CHARLES SUMNER, M.D., Rochester.

Ohio State Homœopathic Medical Society.

S. R. BECKWITH, M.D., Cincinnati, O.
T. P. WILSON, M.D., Cincinnati.
E. P. GAYLORD, M.D., Toledo.
W. H. PARMELEE, M.D., Toledo.
N. SCHNEIDER, M.D., Cleveland.
W. WEBSTER, M.D., Dayton.
W. F. SCHATZ, M.D., Columbus.
R. B. JOHNSON, M.D., Ravenna.

Pennsylvania State Homœopathic Medical Society.

PEMBERTON DUDLEY, M.D., Philadelphia.
H. H. HOFFMAN, M.D., Pittsburg.
C. A. STEVENS, M.D., Scranton.
C. P. SEIP, M.D , Pittsburg.
J. B. WOOD, M.D., West Chester.
M. PRESTON, M.D., Norristown.
D. R. COWLEY, M.D., Pittsburg.

M. FRIESE, M.D., Harrisburg.
R. FAULKNER, M.D., Erie.
W. D. HALL, M.D., Carlisle.
R. C. SMEDLEY, M.D., West Chester.
H. R. FETTERHOFF, M.D., Newville.
R. J. MCCLATCHEY, M.D., Philadelphia.

LOCAL AND COUNTY SOCIETIES.

Illinois Valley Homœopathic Society.
C. D. FAIRBANKS, M.D., Ottawa.

Terre Haute (Ind.) Homœopathic Society.
M. H. WATERS, M.D., Terre Haute.

Indiana Homœopathic Institute.
M. H. WATERS, M.D., Terre Haute.

Worcester County (Mass.) Homœopathic Medical Society.
CHARLES A. BROOKS, M.D., Clinton.

Boston Homœopathic Medical Society.
I. T. TALBOT, M.D., Boston.

St. Louis Academy of Homœopathy.
E. C. FRANKLIN, M.D., St. Louis.

St. Louis Homœopathic Medical Society.
CHARLES VASTINE, M.D., St. Louis.

Essex County (N. H.) Homœopathic Medical Society.
C. A. NORTON, M.D., Portsmouth.

Hudson County (N. J.) Homœopathic Medical Society.
J. J. YOULIN, M.D., Jersey City.

West Jersey Homœopathic Medical Society.
JACOB G. STREETS, M.D., Bridgeton.

Kings County (N. Y.) Homœopathic Medical Society.
WILLIAM WRIGHT, M.D., Brooklyn.

New York County Homœopathic Medical Society.
T. FRANKLIN SMITH, M.D., New York City.

Hahnemann Academy.
EMMA SCOTT, M.D., New York City.

Steuben County (N. Y.) Homœopathic Medical Society.
DR. W. S. PURDY, Corning.

Homœopathic Medical Society of Eastern Ohio.
J. G. HEATON, M.D., Alliance.
R. B. RUSH, M.D., Salem.

Montgomery County (Ohio) Homœopathic Medical Society.
J. B. OWENS, M.D., Lebanon.

Dayton (Ohio) Homœopathic Medical Society.
W. WEBSTER, M.D., Dayton.

Cincinnati Homœopathic Medical Society.
W. OWENS, M.D., Cincinnati.
T. C. BRADFORD, M.D., Cincinnati.

Alleghany County (Pa.) Homœopathic Medical Society.
J. F. COOPER, M.D., Alleghany City.

Cumberland Valley (Pa.) Homœopathic Medical Society.
BENJAMIN BOWMAN, M.D., Chambersburg.

Berks and Schuylkill Counties (Pa.) Homœopathic Medical Societies.
F. W. BOYER, M.D., Pottsville.

Philadelphia County Homœopathic Medical Society.
ROBERT J. MCCLATCHEY, M.D., Philadelphia.
PEMBERTON DUDLEY, M.D., Philadelphia.

HOSPITALS AND ASYLUMS.

Sanitarium at the White Sulphur Tar Springs, Kentucky.
JAMES GEORGE HUNT, M.D., Covington.

Massachusetts Homœopathic Hospital.
C. WESSELHŒFT, M.D., Boston.

Home for Little Wanderers, Boston.
J. H. WOODBURY, M.D., Boston.

House of the Angel Guardian, Boston.
H. P. SHATTUCK, M.D., Boston.

Consumptives' Home.
MARY J. SAFFORD, M.D., Boston.

Home for Fallen and Indigent Women, Boston.
CAROLINE E. HASTINGS, M.D., Boston.

New York Ophthalmic Hospital, New York.
T. F. ALLEN, M.D., New York.

N. Y. Children's Hospital in connection with the Five Points House of Industry.
E. M. KELLOGG, M.D., New York.

New York Half Orphan Asylum.
E. M. KELLOGG, M.D., New York.

Home for the Friendless, New York.
WILLIAM GUERNSEY, M.D., New York.

Homœopathic Surgical Hospital, New York.
S. LILIENTHAL, M.D., New York.

Hahnemann Hospital, New York.
EMMA SCOTT, M.D., New York.

Buffalo (N. Y.) Homœopathic Hospital.
R. R. GREGG, M.D., Buffalo.

Pittsburg (Pa.) Homœopathic Hospital and Dispensary.
J. H. MCCLELLAND, M.D., Pittsburg.

DISPENSARIES AND INFIRMARIES.

Denver (Col.) Homœopathic Dispensary.
M. MAYER MARIX, M.D., Denver.

Homœopathic Medical Dispensary, Mass.
A. K. CARRUTHERS, M.D., Boston.

Harlem (N. Y.) Homœopathic Dispensary.
THOMAS FRANKLIN SMITH, M.D., New York.

New York Homœopathic College Dispensary.
T. F. ALLEN, M.D., New York.

New York Homœopathic Dispensary.
S. LILIENTHAL, M.D., New York.

Twenty-third Street Homœopathic Dispensary for Women and Children, N. Y.
EMMA SCOTT, M.D., New York.

Dayton (Ohio) Homœopathic Dispensary.
W. WEBSTER, M.D., Dayton.

Pittsburg (Pa.) Homœopathic Medical and Surgical Dispensary.
L. H. WILLARD, M.D., Pittsburg.

MEDICAL COLLEGES.

Boston (Mass.) University.
O. S. SANDERS, M.D., Boston.

Michigan Homœopathic Medical Institute.
H. C. STEPHENSON, M.D., Lowell.
B. F. BAILEY, M.D., Lansing.
E. H. DRAKE, M.D., Detroit.

Homœopathic Medical College of Missouri.
E. C. FRANKLIN, M.D., St. Louis.

New York Homœopathic College.
S. LILIENTHAL, M.D., New York.

New York Homœopathic College for Women.
S. LILIENTHAL, M.D., New York.

Cleveland (Ohio) Homœopathic Hospital College.
N. SCHNEIDER, M.D., Cleveland.

Cleveland (Ohio) Academy of Medicine and Surgery.
C. H. VON TAGEN, M.D., Cleveland.

Pulte Medical College, Ohio.
S. R. BECKWITH, M.D., Cincinnati.
T. P. WILSON, M.D., Cincinnati.

Hahnemann Medical College, Philadelphia.
O. B. GAUSE, M.D., Philadelphia.

Hahnemann Medical College, Chicago.
R. LUDLAM, M.D., Chicago.

HOMŒOPATHIC JOURNALS.

Medical Investigator, Chicago.
T. C. DUNCAN, M.D., Chicago, Ill.
J. G. GILCHRIST, M.D., Tidioute, Pa.

U. S. Medical and Surgical Journal, Chicago.
A. E. SMALL, M.D., Chicago.

New England Medical Gazette, Boston.
J. HEBER SMITH, M.D., Melrose.

North American Journal of Homœopathy, New York.
S. LILIENTHAL, M.D., New York.

New York Journal of Homœopathy, New York.
T. F. ALLEN, M.D., New York.

Ohio Medical and Surgical Reporter, Cleveland.
JONATHAN PETTET, M.D., Cleveland.

Medical Advance, Cincinnati, O.
E. W. FISH, M.D., Cincinnati.

Hahnemannian Monthly, Philadelphia, Pa.
R. J. MCCLATCHEY, M.D., Philadelphia.

RECAPITULATION:

Members present,	141
Visitors present,	10
Delegates present:	
From State Societies,	46
" Local Societies,	23
" Colleges,	10
" Hospitals and Asylums,	13
" Dispensaries,	8
" Medical Journals,	8

T. F. SMITH,
N. SCHNEIDER,
T. L. BROWN,
Committee on Credentials.

XXIX.

CONSTITUTION AND BY-LAWS.

CONSTITUTION.

ARTICLE I.

THIS Association shall be styled the AMERICAN INSTITUTE OF HOMŒOPATHY.

ARTICLE II.

The object of the Institute shall be the improvement of the science of medicine.

ARTICLE III.

The Institute shall be composed of those physicians who are already members, and of such others as may be hereafter duly chosen in conformity with its By-laws.

ARTICLE IV.

The officers of the Institute shall be a President, a Vice-President, a General Secretary, a Provisional Secretary, and a Treasurer, with such other officers as shall be designated by the By-laws, to be chosen at such time, in such manner, for such a period, and with such duties, as those By-laws shall ordain.

ARTICLE V.

The Institute shall have and use one common seal, with a suitable device and inscription.

ARTICLE VI.

This Constitution may be altered or amended by a vote of two-thirds of all the members present at the regular annual meeting,

provided that notice of such alteration or amendment shall have been given in writing at a previous annual meeting of the Institute.

BY-LAWS.

ARTICLE I.

The Institute shall hold at least one session in each year, at such time and place as may be determined upon from time to time.

ARTICLE II.

SECTION 1. The officers shall be elected at each session by ballot, and shall enter upon the duties of their several offices on the first day of January following their election.

SECTION 2. The officers of the Institute, viz., The President, Vice-President, General Secretary, Provisional Secretary, and Treasurer, shall constitute an Executive Committee, which shall arrange the order of business at the meetings of the Institute, attend to matters of business not otherwise specially provided for, and perform such other duties as may by vote of the Institute devolve upon them. They shall also constitute the Publication Committee.

ARTICLE III.

The President shall preside at the meetings of the Institute, preserve order therein, put all questions, announce the decisions, and appoint the committees not otherwise ordered.

ARTICLE IV.

The Vice-President shall assist the President, and, in his absence, perform his duties.

ARTICLE V.

The General Secretary shall keep a record of the proceedings of the meetings; answer all letters addressed to the Institute; open and maintain such correspondence as may tend to advance its interests; give proper notice of the meetings of the Institute; notify candidates of their election; and sign certificates of membership.

ARTICLE VI.

The Provisional Secretary shall assist the General Secretary, and, in his absence, perform his duties.

ARTICLE VII.

The Treasurer shall collect all moneys belonging to the Institute, make all necessary disbursements, and report annually in writing.

ARTICLE VIII.

At each session of the Institute there shall be elected, by ballot, a board of five Censors, who shall receive and examine the credentials of candidates, and report to the Institute, for election, such as may be found properly qualified.

ARTICLE IX.

SECTION 1. Any person who shall have pursued a regular course of medical studies, according to the requirements of the existing medical institutions of our country, and who sustains a good moral character and general standing, and who has obtained a certificate of three members of this Institute, attesting to compliance with the above requirements, and by the Board of Censors has been found satisfactorily qualified in the theory and practice of homœopathy, and so reported to the Institute, may be elected a member thereof; and upon the payment of two dollars shall receive a certificate of such election. Certificates furnished to the Board of Censors shall state when and where the applicant graduated.

SECTION 2. Properly accredited delegates, being physicians, shall be admitted during the session of the Institute to all the privileges of members, except voting and eligibility to office, on the following basis:

First. From every association composed of more than fifty members from different States, two delegates, with an additional delegate for every twenty members.

Second. From every State society, two delegates, with an additional delegate for every twenty members.

Third. From every county or local society, one delegate.

Fourth. From every college, hospital, or dispensary actually established, one delegate.

Fifth. From every medical journal published, one delegate.

Such delegates shall be elected for the term of one year.

It shall be their duty to present to this Institute, through its proper bureaus, a clear synopsis of the doings of their respective associations.

SECTION 3. Of State societies represented in the Institute, the Presidents shall be *ex-officio* Vice-Presidents, and the Recording Secretaries shall be *ex-officio* Corresponding Secretaries of the Institute. It shall be the duty of these officers to communicate to the General Secretary any facts or information concerning the condition of these societies and the progress of homœopathy in their several States.

SECTION 4. Any foreign homœopathic physician may be elected a Corresponding Member of the Institute at any meeting; and the Institute may, at any annual meeting, elect as Honorary Members, not to exceed five in one year, any foreign homœopathic physicians who may be judged worthy, from their superior attainments in medicine; provided that the names of persons proposed for honorary membership shall have been presented at a previous annual meeting. Such Corresponding and Honorary Members shall not be entitled to vote, nor be eligible to office.

SECTION 5. Members shall be required to pay annually the sum of five dollars toward defraying the expenses of the Institute.

ARTICLE X.

SECTION 1. There shall be a Bureau of Materia Medica, Pharmacy, and Provings, consisting of nine members, which shall obtain facts relating to the Materia Medica and Pharmacy; and institute, collect, and arrange provings of drugs.

SECTION 2. There shall be a Bureau of Clinical Medicine, consisting of nine members, which shall collect facts relating to clinical medicine generally, and especially to any endemic or epidemic diseases which may exist in the country.

SECTION 3. There shall be a Bureau of Obstetrics, consisting of seven members, which shall collect and report to the Institute facts and observations on subjects pertaining thereto.

SECTION 4. There shall be a Bureau of Gynæcology, consisting of not less than five members, which shall collect and report to the Institute facts and observations in relation to the medical and surgical diseases peculiar to women, not connected with obstetrics proper.

SECTION 5. There shall be a Bureau of Pædology, consisting of not less than five members, which shall collect and report to the Institute facts and observations in relation to the diseases of infants and children.

SECTION 6. There shall be a Bureau of Surgery, consisting of nine or more members, which shall collect all improvements in

surgery and surgical means, especially in connection with homœopathic treatment.

SECTION 7. There shall be a Bureau of Organization, Registration, and Statistics, which shall keep a register of all homœopathic physicians, or those who claim to be such, in the United States, distinguishing those who are members of the Institute, and also members of State societies; prepare a list of all State and local societies, colleges, hospitals, dispensaries, and journals, with their organization; and collect any statistics regarding homœopathy, its status and progress.

SECTION 8. There shall be a Bureau of Anatomy, Physiology, and Hygiene, consisting of seven members, which shall report to the Institute the advances made in these departments of medical science.

SECTION 9. There shall be a Bureau of Psychological Medicine; a Bureau of Ophthalmology and Otology; and a Bureau of Medical Literature, which shall report to the Institute on subjects pertaining thereto.

Each of these bureaus, unless otherwise provided, shall consist of five members, to be appointed annually by the President, with the advice of the other members of the Executive Committee; and if any member of a bureau shall resign, or decline to serve, the chairman of the bureau shall fill the vacancy, and notify the General Secretary of the fact.

The chairmen of similar bureaus in State societies represented in the Institute, shall be *ex-officio* corresponding members of these bureaus.

Before the close of each annual meeting of the Institute, the chairman of each bureau shall call a meeting of its members present to arrange its work for the ensuing year; which shall especially be, the selection of one subject upon which papers shall be solicited during the year, and read during the session, that subject alone being the one for discussion; all papers referring to other subjects to be referred to the Committee of Publication, without reading, except upon special call of the Institute.

ARTICLE XI.

Diplomas shall be granted to such as are already members of the Institute, on the payment of one dollar, and to new members on the payment of two dollars.

ARTICLE XII.

These By-laws may be altered or amended by a vote of a majority of members present at any annual meeting.

XXX.

RESOLUTIONS.

Adopted May 14, 1846.

Resolved, That this Institute recommends the formation of local homœopathic societies, on the basis of the Institute.

Resolved, That each local society be recommended to appoint a bureau for the augmentation and improvement of the Materia Medica, whose duty it shall be to send to the central bureau information in relation to the following topics:

1. The effect which may be observed from the trial of new remedies, whether in health or disease; stating the precise localities of the symptoms, the time of day at which they occur, with all the attending circumstances and conditions.

2. New symptoms, either pathogenetic or curative, of medicines already or not fully tried, which are clearly ascribable to those drugs; with particulars of such cases.

3. Symptoms of remedies which have been most frequently confirmed in practice; also any remarkable coincidence in popular practice—especially in cases of poisoning.

Resolved, That each local society is expected to report itself annually to the Institute.

Resolved, That each member of the Institute be earnestly desired to make trials of drugs upon himself.

Adopted June 13, 1850.

Resolved, That candidates hereafter admitted to membership in the Institute, who may have received a diploma from some regularly established medical college, or institution legally authorized to confer such degree, shall have the title M.D. affixed to their names in all the publications of the Institute; and all who have not such degree of Doctor of Medicine, but are eligible to membership according to the seventh article of the by-laws, shall have prefixed the title of Dr.; and the Board of Censors are hereby instructed so to report their names to the Institute.

Resolved, That, in the opinion of this Institute, all methods of

arriving at the curative properties of a drug, except by means of its pathogenetic effects, are uncertain.

ADOPTED JUNE 12, 1851.

Resolved, That this Institute consider it the duty of every member to make some written communication at every annual meeting, upon some matter pertaining to the general interests of homœopathy.

Resolved, That members of the Institute who may change their place of residence are hereby requested to give notice of such change to the General Secretary.

Resolved, That individuals proposing to become members of the Institute shall subscribe their names, if present, or, if absent, the Secretary be authorized to add such names and place of residence to the constitution and by-laws, previous to receiving the certificate of membership.

ADOPTED JUNE 8, 1853.

Resolved, That the members of the Institute who shall sign the certificate of an applicant for membership, shall state upon the certificate the name of the medical college at which such applicant shall have graduated.

ADOPTED JUNE 8, 1854.

Resolved, That all committees appointed to report on scientific subjects, failing to report within one year after their appointment, shall be discontinued, except by a vote of two-thirds of the members present.

Resolved, That we regard the homœopathic law as coextensive with disease, and that a resort to any other medicinal means than those pointed out by the law *similia similibus*, is the result, in part, of the incompleteness of our Materia Medica, but mainly the result of a want of sufficient knowledge on the part of the physician, of those remedies already possessed by our school; and not of an insufficiency of the homœopathic law.

Resolved, That the pharmaceutists of the homœopathic school be recommended to use, in the preparation of drugs by trituration, the proportions of ten grains of the drug to ninety grains of sugar of milk; and, for the sake of uniformity, to retain the numerical designation adopted by Hahnemann, and continued by the majority of homœopathic physicians.

ADOPTED JUNE 7, 1855.

Resolved, That the Institute cannot view the advertising of

remedies as nostrums, or the combining of several medicines in one prescription, in any other light than as irregular practice, and subversive of the best interests of homœopathy; and that we will not tolerate in our membership one guilty of such practice.

ADOPTED JUNE 5, 1856.

Resolved, That the Proceedings of the Institute, published by the General Secretary, be withheld from all members of the Institute whose arrearages or dues shall amount to more than two dollars at the next meeting.

Resolved, That, in accordance with the usage and dignity of scientific bodies, which very properly discountenance all extraordinary efforts on the part of members of such bodies to enhance individual interest, we, as an associated scientific body, will discountenance all like extraordinary efforts on the part of members of this Institute; and, whenever such cases come to our knowledge well authenticated, we will sever such members from our connection, as no longer worthy of our sympathy and fellowship.

ADOPTED JUNE 4, 1857.

Resolved, That members in good standing who, from advanced age, or from other causes of honorable mention, shall retire from the practice of medicine, may retain their membership, and be exempt from the payment of annual dues.

Resolved, That it is the duty of the American Institute of Homœopathy to extend a fostering care to the homœopathic medical colleges of the United States, and exert its influence in directing students of medicine, who are seeking admission to the honors of the profession, to their halls for instruction.

Resolved, That the American Institute of Homœopathy does not necessarily indorse the doctrines contained in the reports of committees by accepting and publishing such reports with the proceedings.

ADOPTED JUNE 3, 1858.

Resolved, That all papers received by the Institute, which are ordered to be placed on file, be referred to the General Secretary, to be used as he may think proper in making up his report of the proceedings of our annual meetings.

ADOPTED JUNE 2, 1859.

Resolved, That in all publications of the Institute, whenever attenuations, dilutions or potencies are mentioned, the centesimal scale is implied, unless a different scale is expressed.

Resolved, That, in the case of such papers ordered for publication as are objectionable on account of their length, the Publishing Committee may, with the consent of the authors, abbreviate the same, or suspend the publication thereof until otherwise instructed.

Resolved, That a collection of well-digested clinical facts being of importance to the interests of homœopathy, the members of this Institute are requested to furnish the committees appointed to report on medical subjects with an abstract of such cases of importance, occurring in their experience, as relate to any of those designated subjects; and that the publication of the same is authorized, provided it can be effected without subjecting the Institute to pecuniary responsibility.

Adopted June 7, 1866.

Resolved, That members who are three years in arrears, and who do not pay within one year after being so notified by the Treasurer, shall be considered as having forfeited membership, and their names shall be stricken from the list.

Resolved, That while we approve the establishment of life insurance companies which make a distinction in favor of the patrons of homœopathy, and while we desire to encourage such organizations, nevertheless, with a view to impartiality, we hereby forbid the use of the name of the American Institute of Homœopathy in any manner calculated to advertise or promote the interests of one such company in preference to another.

Adopted June 7, 1867.

Resolved, That in the organization of life insurance companies which discriminate in favor of practical homœopathists, we recognize an important instrumentality, which, by showing the superiority of homœopathic treatment, will contribute to the more rapid adoption of the principles of medical science promulgated by the illustrious Hahnemann; and that, whenever practicable, the members of this Institute will give to such organization a united and cordial support.

Adopted June 5, 1868.

Resolved, That, in the meetings of the Institute, the first business in order, after completion of the annual organization, shall be the presentation of reports of bureaus and of all other scientific papers; and that the miscellaneous business shall follow the same.

ADOPTED JUNE 9, 1869.

Resolved, That properly qualified physicans, men or women, are eligible to membership of the American Institute of Homœopathy.

Resolved, That the elective officers of the Institute shall enter upon the duties of their several offices on the first day of January following their election.

Resolved, That the Secretary be instructed to publish the forthcoming volumes of the Transactions so as to correspond with the general plan followed during the last two years.

Resolved, That the Bureau of Clinical Medicine be requested to give attention to the collection of clinical verifications of the symptoms contained in our Materia Medica, and to include such verifications in their reports, with whatever details they deem proper, giving credit to the authors.

Resolved, That the Institute invite State societies to co-operate in this work of clinical verification of the Materia Medica.

ADOPTED JUNE 8, 1870.

Resolved, That the Censors be required to state in what medical college and year the applicant for membership graduated, and that this statement be published with the names of the members after their admission.

Resolved, That the reading of reports of committees be limited to fifteen minutes, and if said reports are too lengthy to be read within that time, the committee shall present a brief statement of the contents of the report, or read by title, as they elect, before it is referred to the appropriate committee.

Resolved, First, That each new bureau, respectively, shall be appointed immediately after the business and discussion of the report of the past year shall be ended.

Resolved, Second, That the Chairman of each bureau shall call it together after such appointment, before the end of the annual meeting, to arrange its work for the year.

Resolved, That the Institute order the preparation of a homœopathic dispensatory, to be submitted to the Institute before publishing, and direct the President to consider the suggestion of the Committee on a Dispensatory, concerning the plan and selection of the committee.

Resolved, That there be a Standing Committee on Legislation, the duty of which shall be to look after and influence, as far as possible, all legislation in the General Government, or any of the States or cities of the country, in anywise affecting the interests of homœopathy, or of its practitioners.

Resolved, That each member of the American Institute will best subserve the interests of homœopathic medicine by using great care to avoid accepting any student of medicine into his office who does not or cannot give evidence of possessing the preliminary education recommended in the report of the Committee on Education.

Resolved, That the resolution relating to qualification apply to all students whose term of pupilage shall commence subsequent to the year 1870, and that every effort be made to acquaint the profession at large with the action of the Institute.

Resolved, That candidates for membership in this Institute, who shall have graduated later than 1873, shall be required to present evidence of having attained the standard of qualification adopted by this Institute.

Adopted June 6, 1871.

Resolved, That the by-laws shall be so amended as to raise the dues of members from $3.00 to $5.00 per annum.

Resolved, That the American Institute of Homœopathy deems it inexpedient to have a public oration delivered hereafter by any member at the meeting of the Institute.

Resolved, That the President shall make an address at the opening of each session of the Institute, which address shall contain a general review of the progress of medicine and homœopathy during the past year, and such suggestions as he may deem necessary for the Institute to take action on during the session.

Adopted June 9, 1871.

Resolved, That all reports or papers which are to be published with the Proceedings of the Institute, shall be handed to the Secretary within thirty days after the close of the session, in order to facilitate the publication of the Proceedings; otherwise they will be excluded.

Adopted May 23, 1872.

Resolved, That the American Institute of Homœopathy accept the communication from the Founders of the Institute, and enact that all members of the Institute whose membership dates from 1848, and prior to that date, be considered *Seniors* in this body; that their ranks be augmented annually by all those who shall have maintained twenty-five successive years of membership, and that they be earnestly requested to attend all meetings

of the Institute and deliberate in their conferences any advisory measures for its continued success.

ADOPTED MAY 24, 1872.

Resolved, That hereafter no report or paper will be received by the Institute from a bureau or committee of the Institute, or from any individual member thereof, in an incomplete or unfinished condition; and that a report or paper having been received by the Institute and referred to the Committee of Publication, shall pass at once into the hands of the General Secretary, and not be returned to the writer under any representations that may be made.

ADOPTED JUNE 3, 1873.

Resolved, That all members of the Institute who have been members in good standing for twenty-five consecutive years, shall be placed on the HONORARY ROLL; and, while retaining all the rights and privileges of full membership, shall be exempt from the payment of further dues.

ADOPTED JUNE 5, 1873.

Resolved, That no cases or papers previously published shall be received by the Institute, or published in its *Transactions*.

XXXI.

MEMBERS.

The ? denotes that the residence is doubtful; the figures show the date of membership.

Members are requested to inform the General Secretary of any change in the address of any of the members.

The following resolution, passed June, 1866, went into effect June, 1867:

Resolved, That members who are three years in arrears, and who do not pay within one year after being so notified by the Treasurer, shall be considered as having forfeited membership, and their names shall be stricken from the list.

The following, adopted June, 1873, went into effect from its passage:

Resolved, That all members of the Institute who have been members in good standing for twenty-five consecutive years, shall be placed on the HONORARY ROLL; and, while retaining all the rights and privileges of full membership, shall be exempt from the payment of further dues.

1870. Abell, D. T., M.D., Sedalia, Mo.
1872. Abercrombie, Wm. H., M.D., Jersey City, N. J.
1871. Adams, Myron H., M.D., Palmyra, N. Y.
1860. Ahlborn, Henry, M.D., 76 Charles St., Boston, Mass.
1867. Albertson, J. A., M.D., 105 O'Farrell St., San Francisco, Cal.
1871. Allen, Richard C., M.D., 4708 Paul St., Frankford, Phila.
1871. Allen, Samuel E., M.D., Trenton, N. J.
1866. Allen, Timothy F., M.D., 3 East 33d St., New York.
1872. Allen, Henry C., M.D., New York.
1873. Allen, George D., M.D., Portland, Mich.
1860. Alley, James T., M.D., St. Paul, Minn.
1868. Alvord, Samuel, M.D., Chicopee Falls, Mass.
1864. Anderson, William D., M.D., New Haven, Conn.
1871. Andrews, Wm. J., M.D., Newark, N. J.
1853. Angell, Henry C., M.D., 16 Beacon St., Boston, Mass.

1846. ANNIN, J. D., M.D., Newark, N. J.
1869. Arcularius, Philip E., M.D., 43 E. 21st St., New York.
1871. Armor, Smith, M.D., Columbia, Pa.
1873. Armstrong, W. P., M.D., Paris, Ill.
1869. Arthur, A. A., M.D., Vergennes, Vt.
1858. Ashton, A. H., M.D., 730 S. 10th St., Philadelphia.
1871. Aten, Henry F., M.D., Brooklyn, N. Y.
1870. Austin, Philip A., M.D., Muscatine, Iowa.
1868. Bacmeister, Theodore, M.D., Toulon, Ill.
1871. Bacon, Charles A., M.D., New York City.
1867. Baer, O. P., M.D., Richmond, Ind.
1870. Bagley, Alvin, M.D., Marshall, Mich.
1870. Bagley, H. B., M.D., Marshall, Mich.
1867. Bailey, George W., M.D., Elizabeth, N. J.
1873. Bailey, Benjamin F., Jr., M.D., Lansing, Mich.
1871. Baker, Daniel P., M.D., Little Valley, Cattaraugus Co., N.Y.
1870. Baker, R. F., M.D., Davenport, Iowa.
1872. Baker, Mary G., M.D., Worcester, Mass.
1871. Baldwin, Aaron, M.D., Georgetown, D. C.
1857. Baldwin, Jared G., M.D., 8 E. 41st St., New York.
1844. BALL, ALONZO S., M.D., 43 W. 11th St., New York.
1870. Ballard, E. A., M.D., 31st St. and Wabash Av., Chicago, Ill.
1870. Bancroft, A. A., M.D., Lansing, Mich.
1868. Bancroft, Walton, M.D., La Salle, Ill.
1866. Baner, William J., M.D., 13 E. 33d St., New York.
1870. Barden, O. P., M.D., Tioga, Pa.
1867. Barker, William C., M.D., Waukegan, Ill.
1844. BARLOW, SAMUEL B., M.D., 55 E. 21st St., New York.
1853. Barnes, George W., M.D., San Diego, Cal.
1848. BARROWS, GEORGE, M.D., Taunton, Mass.
1868. Barrows, George S., M.D., Rockford, Ill.
1846. BARROWS, IRA, M.D., Providence, R. I.
1857. Bartlett, A. R., M.D., Aurora, Ill.
1867. Bartlett, Edward G., M.D., 43 E. 11th St., New York.
1873. Bartlett, Henry H., M.D., Geneva, O.
1868. Baxter, H. H., M.D., Cleveland, O.
1847. BAXTER, WILLIAM, M.D., Wappinger's Falls, N. Y.
1846. BAYARD, EDWARD, M.D., 8 W. 40th St., New York.
1867. Baylies, B. L. B., M.D., Astoria, N. Y.
1870. Beaumont, John H., M.D., Freeport, Ill.
1869. Becker, Benjamin, M.D., Cressona, Pa.
1865. Beckwith, D. H., M.D., Cleveland, O.
1871. Beckwith, E. C., M.D., Zanesville, O.

NOTE.—The names of members entitled to be placed on the HONORARY ROLL are printed in capitals.

1857. Beckwith, Seth R., M.D., Cincinnati, O.
1869. Beebe, A. G., M.D., 64 Park Av., Chicago, Ill.
1870. Beebe, E. W., M.D., Evansville, Wis.
1846. BELCHER, GEORGE E., M.D., 43 E. 21st St., New York.
1868. Bell, James B., M.D., Augusta, Me.
1867. Bell, James S., M.D., Rochester, Minn.
1857. Bell, William C., M.D., Middletown, Conn.
1872. Bender, Prosper, M.D., Quebec, Dominion of Canada.
1873. Benedict, Thomas B., M.D., Ionia, Mich.
1872. Benham, F. A., M.D., Bronson, Mich.
1846. BENNETT, HILEM, M.D., Rochester, N. Y.
1869. Bennett, Hollis K., M.D., Fitchburg, Mass.
1846. BERENS, BERNARD, M.D., 1507 Arch St., Philadelphia.
1846. BERENS, JOSEPH, M.D., S. W. cor. Broad and Green Sts., Philadelphia.
1872. Berghaus, Alex., M.D., 49 W. 24th St., New York.
1858. Berghaus, Julius M., M.D., 49 W. 24th St., New York.
1870. Betts, B. Frank, M.D., 1700 Girard Av., Philadelphia.
1869. Bevin, William A., M.D., Keyport, N. J.
1854. Bigelow, Franklin, M.D., 110 S. Salina St., Syracuse, N.Y.
1868. Biggar, Hamilton F., M.D., Cleveland, O.
1871. Bingaman, C. F., M.D., Pittsburg, Pa.
1869. Birch, George B., M.D., Hannibal, Mo.
1854. Bishop, D. F., M.D., Lockport, N. Y.
1869. Bishop, Herbert M., M.D., 87 Franklin St., Norwich, Conn.
1870. Bishop, Lewellyn A., M.D., Fond du Lac, Wis.
1853. Bissell, Arthur F., M.D., 157 Maiden Lane, N. Y.
1870. Blair, Geo. H., M.D., Cleveland, O.
1869. Blaisdell, John M., M.D., Bangor, Me.?
1872. Blake, Mary J. Safford, M.D., 16 Boylston Pl., Boston, Mass.
1867. Blakelock, Ralph, M.D., 354 W 24th St., New York.
1869. Bloss, J. P., M.D., Troy, N. Y.
1845. BOARDMAN, J. C., M.D., Trenton, N. J.
1865. Boericke, F. E., M.D., 635 Arch St., Philadelphia, Pa.
1866. Borland, W. C., M.D., Pittsburg, Pa.
1872. Bossert, Charles, M.D., 2350 Second Av., New York.
1870. Botsford, Alva H., M.D., Grand Rapids, Wis.?
1867. Bowen, Eleazer, M.D., Jersey City, N. J.
1869. Bowen, G. W., M.D., Fort Wayne, Ind.
1867. Bowen, Horace, M.D., Jersey City, N. J.
1844. BOWERS, BENJAMIN F., M.D., 50 W. 29th St., New York.
1871. Bowie, Alonzo, P., M.D., Uniontown, Pa.
1869. Bowman, Benjamin, M.D., Harrisburg, Pa.
1866. Boyce, C. William, M.D, Auburn, N. Y.
1870. Boyer, Francis W., M.D., Pottsville, Pa.

1860. Bradford, F. Standish, M.D., 55 W. 34th St., New York.
1871. Bradford, Herbert C., M.D., Lewiston, Me.
1846. BRADFORD, RICHMOND, M.D., Auburn, Me.
1869. Bradford, Thomas L., M.D., Skowhegan, Me.
1865. Bradford, T. C., M.D., 170 W. Fourth St., Cincinnati, O.
1873. Bradford, Oliver L., M.D., Andover, Mass.
1853. Brainerd, Jehu, M.D., Washington, D. C.
1869. Breyfogle, Charles W., M.D., San José, Cal.
1873. Breyfogle, W. L., M.D., Louisville, Ky.
1869. Brick, Francis, M.D., Keene, N. H.
1869. Brigham, G. N., M.D., Montpelier, Vt.
1869. Briry, Milton S., M.D., Bath, Me.
1859. Brooks, Charles A., M.D., Clinton, Mass.
1872. Brooks, Chas. G., M.D., East Boston, Mass.
1871. Brown, Benj. P., M.D., Cleveland, O.
1869. Brown, D. M., M.D., Nevada City, Cal.
1867. Brown, Edward V., M.D., Tarrytown, N. Y.
1869. Brown, Granville Curtis, M.D., 29 West 30th Street, New York.
1867. Brown, Henry R., M.D., Leominster, Mass.
1867. Brown, Titus L., M.D., 45 Collier St., Binghamton, N. Y.
1872. Brown, William, M.D., 647 N. 10th St., Philadelphia, Pa.
1872. Brown, Samuel, M.D., 651 N. 10th St., Philadelphia, Pa.
1867. Browne, Gardner S., M.D., Hartford, Conn.
1871. Bryan, Wm. J., M.D., Corning, N. Y.
1867. Bryant, Melville, M.D., 378 Adelphi St., Brooklyn, N. Y.
1869. Buck, J. D., M.D., Cincinnati, O.
1868. Budlong, John C., M.D., Centredale, R. I.
1873. Buffum, J. H., M.D., 324 Penn Avenue, Pittsburg, Pa.
1856. Bull, A. T., M.D., 986 E. Swan St., Buffalo, N. Y.
1867. Bumstead, S. J., M.D., Pekin, Ill.
1867. Bunting, Thomas C., M.D., East Mauch Chunk, Pa.
1872. Burdick, Alice De Baun, M.D., New York City.
1867. Burdick, Stephen P., M.D., 351 W. 34th St., New York.
1854. Burgher, J. C., M.D., 332 Penn Av., Pittsburg, Pa.
1848. BURKE, A. C., M.D., 142 Union St., Brooklyn, N. Y.
1859. Burpee, John A., M.D., Malden, Mass.
1869. Burr, Charles H., M.D., Portland, Me.
1870. Bushnell, Lafayette, M.D., 57 Bond St., New York City.
1873. Butler, W. M., M.D., Montclair, N. J.
1871. Cadmus, James M., M.D., Hammondsport, N. Y.
1868. Calvert, William J., M.D., Jackson, Mich.
1858. Campbell, M. W., M.D., Troy, N. Y.
1867. Campbell, C. E., M.D., 314 E. 18th St., N. Y.
1873. Canfield, Corresta T., M.D., Titusville, Pa.

1870. Carey, Hiram, M.D., Freeport, Ill.
1869. Carpenter, Charles H., M.D., 1 Fifth St., Troy, N. Y.
1870. Carpenter, Moses, M.D., Kankakee, Ill.
1870. Carr, Marvin S., M.D., Galesburg, Ill.
1871. Carroll, Stephen H., M.D., Albany, N. Y.
1873. Caruthers, R. E., M.D., Alleghany, Pa.
1854. Cate, Shadrach M., M.D., Salem, Mass.
1844. CATOR, H. HULL, M.D., Roxbury, N. Y.
1859. Chamberlain, William B., M.D., Worcester, Mass.
1847. CHASE, HIRAM L., M.D., Cambridge, Mass.
1871. Chase, Maurice J., M.D., Galesburg, Ill.
1873. Chase, Sara B., M.D., Brownhelm, O.
1869. Cheever, D. A., M.D., Champaign, Ill.
1870. Cheney, Benjamin H., M.D., 189 Church St., New Haven, Conn.
1871. Child, Nelson N., M.D., Ogdensburg, N. Y.
1865. Childs, W. R., M.D., 204 Penn Av., Pittsburg, Pa.
1870. Chittenden, George W., M.D., Janesville, Wis.
1871. Church, Charles A., M.D., Norwich, N. Y.
1871. Clapp, Herbert C., M.D., 35 Howard St., Boston, Mass.
1846. CLARK, ELIPHALET, M.D., Portland, Me.
1850. Clark, J. K., M.D., Sacramento, Cal.
1844. CLARK, LUTHER, M.D., Waltham, Mass.
1872. Clark, J. J., M.D., Washington, D. C.?
1854. Clarke, Henry B., M.D., New Bedford, Mass.
1859. Clarke, John L., M.D., Fall River, Mass.
1846. CLARKE, PELEG, M.D., 21 Sutton St., Providence, R. I.
1845. CLARY, LYMAN, M.D., 54 Warren St., Syracuse, N. Y.
1860. Clay, G. B. L., M.D., Moorestown, N. J.
1867. Cleaveland, William L., M.D., Atlanta, Ga.
1869. Cloud, Charles R., M.D., Burlington, N. J.
1869. Cloud, J. A., M.D., 914 S. 19th St., Philadelphia, Pa.
1869. Coburn, Edward S., M.D., 70 Second St., Troy, N. Y.
1869. Cochran, Charles A., M.D., Winthrop, Me.
1865. Coffreen, J. Q. A., M.D., Dayton, O.
1866. Cogswell, C. H., M.D., Clinton, Iowa.
1870. Colburn, S. H., M.D., Springfield, Vt.
1871. Colby, Edward P., M.D., Malden, Mass.
1871. Cole, H. P., M.D., 23 University Place, Chicago, Ill.
1869. Cole, S. P., M.D., 23 University Place, Chicago, Ill.
1851. Collins, H. A., M.D., Springfield, Mass.
1857. Colton, D. A., M.D., 54 31st St., Chicago, Ill.
1869. Compton, J. Augustine, M.D., Indianapolis, Ind.
1867. Comstock, Albert L., M.D., Mount Kisco, N. Y.
1848. COOK, ABIJAH P., M.D., Hudson, N. Y.

1869. Cook, Charles P., M.D., Hudson, N. Y.
1867. Cook, E. G., M.D., 342 Washington St., Buffalo, N. Y.
1866. Cook, William H., M.D., Carlisle, Pa.
1872. Cook, Susan S., M.D., Buffalo, N. Y.
1854. Cooke, N. F., M.D., 360 Michigan Av., Chicago, Ill.
1866. Cooper, J. F., M.D., Alleghany, Pa.
1866. Cooper, Frank B., M.D., Alleghany, Pa.
1869. Corcoran, Luke, M.D., Springfield, Mass.
1873. Cossaart, A. B., M.D., Otego, N. Y.
1856. Côté, Marcellin, M.D., 284 Penn Av., Pittsburg, Pa.
1869. Covert, Nelson B., M.D., Geneva, N. Y.
1871. Covert, Rynear B., M.D., Geneva, N. Y.
1865. Cowley, David, M.D., Station A, Pittsburg, Pa.
1854. Cox, James W., M.D., Albany, N. Y.
1871. Cox, George Howell, M.D., Hastings, Mich.
1869. Cragin, F. M., M.D., Norwood, Mass.
1867. Craig, J. D., M.D., Niles, Mich.
1872. Crater, Henry, M.D., Somerville, N. J.
1869. Crispell, G. D., M.D., Kingston, N. Y.
1865. Cropper, Charles C., M.D., Oxford, Butler Co., O.
1869. Cross, Hiram B., M.D., Jamaica Plain, Mass.
1869. Cross, William P., M.D., 476 Broadway, S. Boston, Mass.
1859. Cullis, Charles, M.D., 16 Somerset St., Boston, Mass.
1848. CUMMINGS, J. M., M.D., Portland, Me.
1847. CURRIER, C. B., M.D., Middlebury, Vt.
1870. Curtis, D. G., M.D., Massillon, O.?
1867. Cushing, Alvin M., M.D., Lynn, Mass.
1869. Cutler, William C., M.D., Chelsea, Mass.
1852. Dake, Jabez P., M.D., 21 N. Vine St., Nashville, Tenn.
1872. Dake, William C., M.D., Nashville, Tenn.
1870. Danforth, Willis, M.D., 1224 Wabash Av., Chicago, Ill.
1871. Davis, W. Beesley, M.D., 323 Richmond St., Philadelphia, Pa.
1868. Dayfoot, Herbert M., M.D., Mount Morris, N. Y.
1869. De Derkey, F. F., M.D., Mobile, Ala.
1869. Delavan, J. Savage, M.D., 77 Columbia Street, Albany, N. Y.
1869. Dennis, L., M.D., Newark, N. J.
1851. Denison, Jeremiah T., M.D., Fairfield, Conn.
1844. DETWILER, H., M.D., Easton, Pa.
1858. Detwiler, J. J., M.D., Easton, Pa.
1873. Detwiler, W. M., M.D., Findley, O.
1858. Dinsmore, J. Pitman, M.D., Oakland, Cal.
1851. Dodge, Moses, M.D., Portland, Me.

1848. DONOVAN, THOMAS W., M.D., Tompkinsville, Staten Island, N. Y.
1868. Doran, Charles R., M.D., Hagerstown, Md.
1869. Dorion, Charles N., M.D., 526 Wabash Av., Chicago, Ill.
1869. Doty, Hylon, M.D., Canandaigua, N. Y.
1847. DOUGLAS, J. S., M.D., Milwaukee, Wis.
1872. Doughty, Francis E., M.D., 50 W. 33d St., New York.
1867. Dowling, John W., M.D., 58 W. 25th St., New York.
1867. Drake, E. H., M.D., Detroit, Mich.
1871. Drake, Jason W., M.D., Dover, N. H.
1871. Drake, Olin M., M.D., Ellsworth, Me.
1871. Dreher, Charles B., M.D., Tamaqua, Pa.
1871. Dubs, Samuel R., M.D., Doylestown, Pa.
1869. Dudley, Pemberton, M.D., 684 N. 12th St., Philadelphia.
1866. Duncan, T. Cation, M.D., 287 W. Randolph St., Chicago.
1860. Dunham, Carroll, M.D., Irvington, N. Y.
1873. Dunning, Julia A., M.D., Corry, Pa.
1866. Earhart, J. R., M.D., 1839 Arch St., Philadelphia.
1859. Eaton, Hosea B., M.D., Rockport, Me.
1871. Edmunson, Walter F., M.D., Alleghany, Pa.
1872. Edson, Susan A., M.D., Washington, D. C.
1868. Eggert, William, M.D., Indianapolis, Ind.
1846. EHRMAN BENJAMIN, M.D., 46 W. 7th St., Cincinnati, O.
1846. EHRMAN, F., M.D., 84 W. 7th St., Cincinnati, O.
1873. Eldridge, I. M., M.D., Flint, Mich.
1873. Eldridge, C. S., M.D., 972 Wabash Av., Chicago, Ill.
1869. Elliott, Joseph B., M.D., 493 Clinton Av., Brooklyn, N.Y.
1857. Ellis, John, M.D., 14 W. 27th St., New York.
1873. Ensign, Jennie, M.D., New York.
1867. Ermentraut, John P., M.D., 265 E. 4th St., New York.
1872. Esten, John, M.D., San Francisco, Cal.
1870. Evans, C. Horace, M.D., Cincinnati, O.
1872. Everett, Mary H., M.D., 167 W. 34th St., New York.
1871. Fager, Charles B., M.D., Harrisburg, Pa.
1870. Fairbanks, Charles D., M.D., 28 Warren Av., Chicago, Ill.
1867. Fanning, Thomas C., M.D., Tarrytown, N. Y.
1859. Farnsworth, Charles H., M.D., E. Cambridge, Mass.
1872. Farrington, E. A., M.D., 1616 Mt. Vernon St., Philadelphia, Pa.
1866. Faulkner, R., M.D., Erie, Pa.
1867. Fellows, H. Barton, M.D., 1242 Prairie Av., Chicago, Ill.
1871. Fetterhoff, Hiram R., M.D., Newville, Pa.
1868. Finch, Edward W., M.D., New Rochelle, N. Y.
1855. Fincke, Bernhardt, M.D., 122 Livingston St., Brooklyn.
1867. Fish, Chas. F., M.D., Newark, N. J.

1873. Fisher, A. Le Roy, M.D., Elkhart, Ind.
1867. Fiske, William M. I., M.D., 101 Division Avenue, Brooklyn.
1867. Flagg, Levi W., M.D., Yonkers, N. Y.
1869. Flanders, David P., M.D., Belfast, Me.
1870. Flowers, J. R., M.D., Columbus, O.
1850. Foote, George F., M.D., Stamford, Conn.
1870. Foster, R. N., M.D., 481 W. Madison St., Chicago, Ill.
1867. Foster, Wm. D., M.D., Hannibal, Mo.
1869. Fowler, Edward P., M.D., 4 E. 33d St., New York.
1867. Franklin, E. C., M.D., 1402 Olive St., St. Louis, Mo.
1873. Frasier, Jerome B., M.D., Conneautville, Pa.
1858. Freeman, W., M.D., 39 W. 36th St., New York.
1860. Freeman, Wm. E., M.D., Wilmington, N. C.
1858. Freligh, Martin, M.D., 31 W. 24th St. New York.
1871. French, Harriet S., M.D., 238 N. 9th St., Philadelphia.
1866. Friese, Michael, M.D., Harrisburg, Pa.
1865. Frost, James H. P., M.D., Danville, Pa.
1872. Frye, Moses M., M.D., 155 Worth St., New York.
1844. FULLER, MILTON, M.D., 35 Essex St., Boston, Mass.
1858. Füllgraff, Otto, M.D., 53 Irving Place, New York.
1869. Gale, J. A., M.D., West Medway, Mass.
1859. Gale, Stephen M., M.D., Newburyport, Mass.
1868. Gallinger, Jacob H., M.D., Concord, N. H.
1848. GALLUPE, WILLIAM, M.D., Bangor, Me.
1851. Gambell, W. P., M.D., 2 Rutland St., Boston, Mass.
1871. Garbereich, E. W., M.D., Mechanicsburg, Pa.
1870. Gardiner, D. E., M.D., Bordentown, N. J.
1849. GARDINER, DANIEL R., M.D., Pottsville, Pa.
1869. Gardiner, M. M., M.D., Utica, N. Y.
1846. GARDINER, RICHARD, M.D., 146 N. 20th St., Philadelphia.
1865. Garside, W. B., M.D., 63 Greene Avenue, Brooklyn, N. Y.
1869. Gause, Owen B., M.D., 140 N. 12th St., Philadelphia.
1873. Gaylord, E. P., M.D., Toledo, O.
1859. Geary, John F., M.D., 632 Howard St., San Francisco, Cal.
1859. Gersdorff, E. B. de, M.D., 138 Boylston St., Boston, Mass.
1869. Gifford, Gilbert L., M.D., Hamilton, N. Y.
1872. Gilchrist, J. G., M.D., Tidioute, Pa.
1859. Goedecke, L., M.D., Belle Plaine, Iowa.
1870. Goodman, Ch. H., M.D., St. Louis, Mo.
1870. Gordon, George A., M.D., Salem, O.
1869. Gottschalk, Wm. von, M.D., 243 Westminster St., Providence, R. I.
1872. Goucher, E. T., M.D., Alliance, O.

1870. Graham, E. B., M.D., Three Rivers, Mich.
1869. Gramm, Gustavus E., M.D., 1656 Vienna St., Philad'a.
1871. Grant, Benj. F., M.D., Bath, N. Y.
1869. Graves, S. P., M.D., Saco, Me.
1844. GRAY, JOHN F., M.D., Fifth Avenue Hotel, New York.
1871. Greenleaf, John T., M.D., Owego, N. Y.
1855. Gregg, Rollin R., M.D., 42 S. Division St., Buffalo, N. Y.
1869. Griffith, J. J., M.D., Manayunk, Philadelphia, Pa.
1869. Groot, S. I., M.D., 344 New York Av., Washington, D. C.
1870. Gross, James E., M.D., 756 Michigan Av., Chicago, Ill.
1872. Gross, Maria M., M.D., 756 Michigan Av., Chicago, Ill.
1848. GUERNSEY, EGBERT, M.D., 18 W. 23d St., New York.
1846. GUERNSEY, HENRY N., M.D., 1423 Chestnut St., Philad'a.
1852. Guernsey, Wm. F., M.D., 4430 Frankford Av., Philad'a.
1857. Guilbert, Edward A., M.D., Dubuque, Iowa.
1869. Guild, Phineas K., M.D., Columbia, S. C.
1867. Gumpert, B. B., M.D., 840 Franklin St., Philadelphia.
1865. Gunkle, Henry, M.D., Newport, Ky.
1847. GUY, SAMUEL S., M.D., 94 Greene Av., Brooklyn, N. Y.
1870. Gwynn, Wm. M., M.D., Throopsville, N. Y.
1869. Haeseler, Charles H., M.D., 2009 Arch St., Philadelphia.
1872. Haines, Jas. W., M.D., Waynesville, O.
1865. Hale, Edwin M., M.D., 65 22d St., Chicago, Ill.
1850. Hall, Geo. A., M.D., Chicago, Ill.
1869. Hall, John, M.D., 33 Richmond St., Toronto, Ontario.
1873. Hall, E. M., M.D., Fredericktown, O.
1873. Hall, John B., M.D., St. Paul, Minn.
1846. HALLOCK, LEWIS, M.D., 34 E. 39th St., New York.
1871. Hammond, Albert, M.D., Hagerstown, Md.
1852. Hammond, Milton, M.D., 57 N. Paca St., Baltimore, Md.
1865. Haynes, J. R., M.D., Indianapolis, Ind.
1871. Hardy, James E., M.D., 234 Madison Av., Baltimore.
1857. Harris, Charles Taylor, M.D., Ypsilanti, Mich.
1865. Hartshorn, D. W., M.D., Cincinnati, O.
1868. Hasbrouck, Stephen, M.D., Dobbs Ferry, N. Y.
1857. Hatch, Philo L., M.D., Minneapolis, Minn.
1867. Harding, Evan B., M.D., Northampton, Mass.
1870. Hawks, Wm. J., M.D., 272 W. Madison St., Chicago, Ill.?
1858. Hawley, L. B., M.D., Phœnixville, Pa.
1869. Hawley, William A., M.D., Syracuse, N. Y.
1869. Hayward, Joseph W., M.D., Taunton, Mass.
1873. Hayward, Milton P., M.D., Oberlin, O.
1870. Heaton, J. G., M.D., Alliance, O.
1869. Hedges, S. P., M.D., 917 N. Clark St., Chicago, Ill.

1846. HELMUTH, WM. S., M.D., 1904 Spruce St., Philadelphia.
1853. Helmuth, Wm. Tod, M.D., 21 W. 37th St., New York.
1867. Hemenway, Horace P., M.D., E. Somerville, Mass.
1846. HEMPEL, CHARLES J., M.D., Grand Rapids, Mich.
1844. HERING, CONSTANTINE, M.D., 112 N. 12th St., Philad'a.
1867. Heurtley, R. Walter, M.D., 107 4th Av., New York.
1871. Higbee, Albert E., M.D., Red Wing, Minn.
1871. Higbee, Chester G., M.D., St. Paul, Minn.
1867. Hill, Robert L., M.D., Dubuque, Iowa.
1870. Hills, Alfred K., M.D., 20 E. 24th St., New York.
1869. Hiller, Frederick, M.D., San Francisco, Cal.
1873. Hiller, Frederick, Jr., M.D., San Francisco, Cal.
1847. HINDS, W. H. H., M.D., Milford, N. H.
1869. Hinkley, A. S., M.D., Buffalo, N. Y.
1867. Hinks, E. F., M.D., Marlborough, Mass.
1867. Hitchcock, H. M., M.D., Omaha, Neb.?
1873. Hitchcock, Dexter, M.D., Norwalk, Conn.
1859. Hobson, Joseph V., M.D., Richmond, Va.
1867. Hocking, Wm. F., M.D., Cleveland, O.
1869. Hoffendahl, H. L. H., M.D., 25 Somerset St., Boston, Mass.
1854. Hoffman, H. H., M.D., 216 Penn Avenue, Pittsburg, Pa.
1870. Holbrook, L. H., M.D., 149 Park Av., Chicago, Ill.
1860. Holcombe, Wm. H., M.D., 229 Camp St., New Orleans.
1869. Holmes, E. B., M.D., Canandaigua, N. Y.
1857. Holt, Aaron P., M.D., Lyndon, Ill.
1846. HOLT, DANIEL, M.D., Lowell, Mass.
1869. Holt, Edward B., M.D., Chelsea, Mass.
1870. Holt, L. E. B., M.D., Marshalltown, Iowa.
1866. Homer, Horace, M.D., Plainfield, N. J.
1869. Hoppin, Courtland, M.D., Providence, R. I.
1867. Hornby, John, M.D., Poughkeepsie, N. Y.
1858. Hotchkiss, Jesse T., M.D., Cornwall, Orange Co., N. Y.
1859. Houghton, H. A., M.D., Keeseville, N. Y.
1867. Houghton, Henry C., M.D., 50 W. 33d St., New York.
1870. Hoxsie, Augustus C., M.D., Buffalo, N. Y.
1867. Hoyne, Temple S., M.D., 817 Wabash Av., Chicago.
1869. Humphrey, Otis M., M.D., Minneapolis, Minn.
1869. Hoyt, William Henry, M.D., Syracuse, N. Y.
1869. Huebener, O. T., M.D., Litiz, Pa.
1870. Huebenger, Jno. A., M.D., Lockland Station, O.
1867. Hund, H. B., M.D., 128 Forsyth St., New York.
1868. Hunt, David, Jr., M.D., Worcester, Mass.
1867. Hunt, F. W., M.D., 171 E. 62d St., New York.
1867. Hunt, Henry F., M.D., 315 Market St., Camden, N. J.

1865. Hunt, James G., M.D., Cloverport, Ky.
1865. Hunt, W. H., M.D., Covington, Ky.
1873. Hunt, J. B., M.D., Indianapolis, Ind.
1873. Hurd, Edwin H., M.D., Rochester, N. Y.
1871. Hunting, Nelson, M.D., Albany, N. Y.
1869. Huson, Samuel K., M.D., Lawrence, Kansas.
1872. Hutchins, H. S., M.D., Batavia, N. Y.
1853. Hutchinson, J. B., M.D., Madison, Ind.
1867. Ingalls, Frederic W., M.D., Kingston, N. Y.
1871. Iszard, Jacob, M.D., Glassboro, N. J.
1871. Jackson, Mercy B., M.D., 681 Tremont St., Boston, Mass.
1869. Jacobson, Edward H., M.D., Bethlehem, Pa.
1859. James, Bushrod W., M.D., N. E. cor. 18th and Green Sts., Philadelphia.
1866. James, J. E., M.D., 1013 Green St., Philadelphia.
1869. James, Walter M., M.D., 123 N. 21st St., Philadelphia.
1867. Jayne, De Witt C., M.D., Florida, N. Y.
1844. JEANES, JACOB, M.D., 521 Vine St., Philadelphia.
1859. Jefferds, George P., M.D., Bangor, Me.
1873. Jenny, William H., M.D., Kansas City, Mo.
1869. Jernegan, H. Mayhew, M.D., Boston, Mass.
1859. Johnson, Daniel A., M.D., 20 Worcester St., Boston, Mass.
1869. Johnson, I. W., M.D., Peoria, Ill.
1860. Johnson, Isaac D., M.D., Kennett Square, Pa.
1870. Johnson, R. B., M.D., Ravenna, O.
1846. JONES, E. DARWIN, M.D., Albany, N. Y.
1854. Jones, Elijah U., M.D., Taunton, Mass.
1867. Jones, Henry C., M.D., Mount Vernon, N. Y.
1858. Jones, Joseph E., M.D., West Chester, Pa.
1868. Jones, S. A., M.D., 230 W. 25th St., New York.
1870. Jones, Stephen D., M.D., Richmond, Ind.
1867. Jones, William A., M.D., Wilton, N. H.
1873. Jones, Gaius J., M.D., Grafton, O.
1853. Joslin, Benj. F., M.D., 50 W. 29th St., New York.
1871. Karsner, Charles, M.D., 4845 Germantown Av., Phila.
1867. Keep, J. Lester, M.D., 457 Vanderbilt Av., Brooklyn, N.Y.
1848. KEEP, LESTER, M.D., cor. Gates and Vanderbilt Avenues, Brooklyn, N. Y.
1869. Keith, Theodore S., M.D., Newton, Mass.
1858. Kellogg, Edwin M., M.D., 29 E. 19th St., New York.
1869. Kennedy, E. H., M.D., Thompson, Carroll Co., Ill.
1872. Kennedy, J. C., M.D., East Birmingham, Pa.
1853. Kenyon, L. M., M.D., 86 W. Mohawk St., Buffalo, N. Y.
1870. Kergan, John D., M.D., Newburg, Mich.
1844. KIMBALL, DAVID S., M.D., Sackett's Harbor, N. Y.

1870. King, E. H., M.D., Clinton, Iowa.
1869. Kinne, Theodore Y., M.D., Paterson, N. J.
1870. Kippax, John R., M.D., Wheaton, Ill.
1869. Kittinger, Leonard, M.D., Wilmington, Del.
1871. Kneass, Nicholas W., M.D., Baltimore, Md.
1871. Knerr, Calvin B., M.D., 112 N. 12th St., Philadelphia.
1867. Knight, Elam C., M.D., Waterbury, Conn.
1871. Knowles, Wm. K., M.D., Georgetown, Col.
1848. Koch, A. W., M.D., 118 N. 12th St., Philadelphia.
1869. Koch, John W., M.D., Quincy, Ill.
1865. Krebs, Francis H., M.D., 42 Union Park, Boston, Mass.
1867. Kuhn, Carl W., M.D., 59 Bond St., New York.
1869. Kummel, Ernst R., M.D., Milwaukee, Wis.
1860. Lee, J. K., M.D., 3800 Chestnut St., Philadelphia.
1870. Leland, A. G., M.D., White Water, Wis.
1873. Leonard, W. H., M.D., Minneapolis, Minn.
1855. Lewis, George W., M.D., Buffalo, N. Y.
1871. Lewis, Henry M., M.D., 78 Orange St., Brooklyn, N. Y.
1871. Lewis, Richard, M.D., 4550 Frankford Av., Philadelphia.
1867. Liebold, C. Theo., M.D., 21 W. 30th St., New York.
1867. Lilienthal, S., M.D., 230 W. 25th Street, New York.
1870. Linn, William D., M.D., Middletown, O.
1845. Lippe, Adolph, M.D., 1204 Walnut Street, Philada., Pa.
1866. Lodge, Edwin A., M.D., 57 Wayne St., Detroit, Mich.
1872. Lodge, Edwin A., Jr., M.D., Detroit, Mich.
1868. Loelkes, George, M.D., Belleville, Ill.
1869. Lord, I. S. P., M.D., 153 Madison St., Brooklyn, N. Y.
1858. Lougee, William H., M.D., Lawrence, Mass.
1869. Lowe, Lewis G., M.D., Bridgewater, Mass.
1868. Ludlam, Edward M. P., M.D., 318 W. Washington St., Chicago, Ill.
1857. Ludlam, Reuben, M.D., 526 Wabash Av., Chicago, Ill.
1872. Lukens, Isaiah, M.D., Newport, Del.
1873. Lukens, M. B., M.D., Cleveland, O.
1870. Lungren, Samuel S., M.D., Toledo, O.
1868. Luyties, D. R., M.D., St. Louis, Mo.
1869. McAffee, E. M., M.D., Mt. Carroll, Ill.
1873. McChesney, A. C., M.D., College Hill, O.
1860. McClatchey, R. J., M.D., 918 N. 10th St., Philada., Pa.
1867. McClelland, J. H., M.D., 316 Penn Av., Pittsburg, Pa.
1871. McCollum, Matthew, M.D., Port Chester, N. Y.
1873. McDermott, Geo. C., M.D., Warren, Pa.
1868. Macfarlan, Malcolm, M.D., 1721 Chestnut St., Phila., Pa.
1858. Macfarland, Lafayette, M.D., 2 East Brookline Street, Boston, Mass.

1871. McGeorge, Wallace, M.D., Woodbury, N. J.
1860. McLeod, G. J., M.D., 3905 Locust St., Philadelphia, Pa.
1870. McLin, George H., M.D., Buchanan, Mich.
1844. McMANUS, F. R., M.D., 71 Franklin St., Baltimore, Md.
1866. McMurray, Robert, M.D., 192 Second Av., New York.
1867. McNeil, Daniel, M.D., Hudson City, N. J.
1867. Macomber, Addison P., M.D., Hackensack, N. J..
1844. MAIRS, JAMES, M.D., 45 W. 24th Street, New York.
1860. Malin, John, M.D., 4847 Germantown Av., Philadelphia.
1871. Malin, Wm. H., M.D., Chestnut Hill, Philadelphia, Pa.
1844. MANCHESTER, CHARLES F., M.D., 49 Main Street, Pawtucket, R. I.
1867. Mandeville, F. B., M.D., Newark, N. J.
1871. Mansfield, William L., M.D., Emporia, Kansas.
1872. Manson, Chas. A., M.D., Springfield, Mass.
1848. MARCY, ERASTUS E., M.D., 228 Fifth Av., New York.
1868. Marix, Martin Mayer, M.D., Denver, Col.
1871. Martin, Constantine H., M.D., Allentown, Pa.
1868. Martin, H. N., M.D., 500 N. 18th St., Philadelphia, Pa.
1857. Martin, Jos. Lloyd, M.D., Mt. Vernon Place, Baltimore, Md.
1867. Mason, S. R., M.D., Sheffield, Ill.
1872. Massey, J. B., M.D., Sandusky City, O.
1859. Matthes, G. Felix, M.D., New Bedford, Mass.
1873. Mera, H. P., M.D., Pottsville, Pa.
1871. Mercer, Robert P., M.D., Chester, Pa.
1871. Middleton, Caleb S., M.D., 646 N. 10th St., Philada., Pa.
1869. Middleton, Melbourne F., M.D., Camden, N. J.
1871. Miller, Harrison V., M.D., Syracuse, N. Y.
1867. Miller, R. E., M.D., Oxford, N. Y.
1869. Minor, John C., M.D., 10 E. 41st St., New York.
1858. Minton, Henry, M.D., 184 Remsen St., Brooklyn, N. Y.
1868. Mitchell, Geo. B. I., M.D., Fishkill, New York.
1866. Mitchell, John J., M.D., Newburgh, N. Y.
1866. Mitchell, J. S,, M.D., 871 Michigan Av., Chicago, Ill.
1867. Mitchell, J. W., M.D., 12 E. 28th St., New York.
1867. Moffat, Reuben C., M.D., 17 Schermerhorn Street, Brooklyn, N. Y.
1867. Montayne, William D. L., M.D., Rondout, N. Y.
1869. Moore, James Otis, M.D., Haverhill, Mass.
1868. Moore, John, M.D., Liverpool, Eng.
1860. Moore, Joseph, M.D., Bridgeton, N. J.
1860. Moore, Thomas, M.D., N.E. cor. West Walnut Lane and Green St., Germantown, Philada.
1855. Morgan, A. R., M.D., 103 Fulton Street, New York.

1867. Morgan, John C., M.D., 1700 Chestnut St., Philada., Pa.
1872. Morgan, Laura, M.D., 880 Lexington Av., New York.
1846. MORRILL, ALPHEUS, M.D., Concord, N. H.
1858. Morrill, Henry S., M.D., 88 Orange Street, Brooklyn, N.Y.
1873. Morrill, E. C., M.D., Norwalk, O.
1869. Morse, Martin V. B., M.D., Marblehead, Mass.
1867. Morse, Nathan R., M.D., Salem, Mass.
1872. Morse, Lucius D., M.D., Memphis, Tenn.
1869. Mosman, Nathan A., M.D., Norwalk, Conn.
1869. Mull, P. W., M.D., Ghent, N. Y.
1859. Munde, Charles, M.D., Wurzburg, Germany.
1848. MUNGER, ERASTUS A., M.D., Waterville, N. Y.
1867. Munsey, Barton, M.D., 2403 Washington St., St. Louis.?
1867. Negendank, Augustus, M.D., Wilmington, Del.
1844. NEIDHARD, CHARLES, M.D., 1511 Arch St., Philada, Pa.
1859. Neilson, James C., M.D., Charlestown, Mass.
1871. Neville, William H. H., M.D., N. W. cor. 18th and Fairmount Av., Philada.
1872. Newell, Wm. H., M.D., Jersey City, N. J.
1872. Nichol, Thomas, M.D., Montreal, D. of Canada.
1867. Nichols, Frank, M.D., Hoboken, N. J.
1859. Nichols, Lemuel B., M.D., Worcester, Mass.
1848. NORTON, LUCIAN H., M.D., Bridgeport, Conn.
1872. Norton, Geo. S., M.D., Ophthalmic Hospital, New York.
1873. Norton, Charles A., M.D., Portsmouth, N. H.
1869. Nott, Eliphalet, M.D., 22 Jefferson St., Brooklyn, N. Y.
1870. Nottingham, John, M.D., Paterson, N. J.
1857. Ober, L. E., M.D., La Crosse, Wis.
1872. Ockford Geo. M., M.D., Hackensack, N. J.
1870. Ordway, L. S., M.D., Freeport, Ill.
1859. Orme, F. H., M.D., Atlanta, Ga.
1856. Ormes, Cornelius, M.D., Jamestown, N. Y.
1872. Owen, Ira C., M.D., Sherburne, N. Y.
1865. Owens, William, M.D., 7th St., cor. John, Cincinnati, O.
1872. Owens, Jas. B., M.D., Lebanon, O.
1868. Packard, Liberty D., M.D., 538 Broadway, South Boston, Mass.
1869. Packer, Edmund H., M.D., Lowell, Mass.
1869. Page, Moses F., M.D., Appleton, Wis.
1844. PAINE, HENRY D., M.D., 26 West 30th St., New York.
1850. Paine, Horace M., M.D., 104 State St., Albany, N. Y.
1869. Palmer, George B., M.D., East Hamilton, N. Y.
1856. Palmer, Frederick N., M.D., 37 Pinckney St., Boston, Mass.
1848. PALMER, MILES W., M.D., 235 E. 18th St., New York.

1871. Parker, George W., M.D., 1404 S. 6th St., Philada., Pa.
1870. Parker, Geo. T., M.D., Newcastle, Pa.
1853. Parks, John M., M.D., Cincinnati, O.
1869. Parsell, George H., M.D., Weedsport, N. Y.
1870. Parsons, Ephraim, M.D., Kewanee, Ill.
1868. Parsons, Scott B., M.D., St. Louis, Mo.
1870. Patchen, T. J., M.D., Fond du Lac, Wis.
1873. Patchen, George H., M.D., Burlington, Iowa.
1867. Payne, Frederick W., M.D., 27 Concord Sq., Boston, Mass.
1860. Payne, James H., M.D., 1262 Washington St., Boston, Mass.
1844. PAYNE, WILLIAM E., M.D., Bath, Me.
1867. Pearsall, S. J., M.D., Saratoga Springs, N. Y.
1867. Pearson, Clement, M.D., Cleveland, O.
1868. Pease, Giles M., M.D., San Francisco, Cal.
1868. Peck, Edwin H., M.D., Cleveland, O.
1871. Peck, Oliver J., M.D., N. Chatham, N. Y.
1872. Peer, Geo. W., M.D., Rochester, N. Y.
1870. Pennoyer, N. A., M.D., Kenosha, Wis.
1873. Pettet, Jonathan, M.D., Cleveland, O.
1871. Pettingill, Sarah B., M.D., 300 N. Tenth St., Philada., Pa.
1872. Pettingill, Eliza F., M.D., 300 N. Tenth St., Philada., Pa.
1871. Pfeiffer, George S. F., M.D., Camden, N. J.
1871. Pfouts, John S., M.D., Wilkesbarre, Pa.
1867. Phillips, Albert William, M.D., Birmingham, Conn.
1871. Phillips, Edward H., M.D., Cape May, N. J.
1873. Phillips, W. A., M.D., Cleveland, O.
1870. Piersons, A. Manly, M.D., 30 E. 127th St., New York.
1854. Pomeroy, Thomas F., M.D., 74 Saratoga St., Baltimore, Md.
1847. POOLE, AUGUSTUS, M.D., 232 W. 1st St., Oswego, N. Y.
1871. Poppe, Otto B., M.D., Crown Point, Ind.
1870. Porter, Edward, M.D., Clinton, Ill.
1867. Poulson, P. W., M.D., Council Bluffs, Iowa.
1871. Powell, H., M.D., 128 East Broadway, New York.
1867. Pratt, Leonard, M.D., Wheaton, Ill.
1859. Pratt, L. M., M.D., corner Columbia and Pearl Sts., Albany, N. Y.
1867. Pratt, William M., M.D., 278 East Broadway, N. Y.
1870. Prentice, Nathan F., M.D., Freeport, Ill.
1866. Preston, Coates, M.D., Chester, Pa.
1871. Preston, Henry G., M.D., Albany, N. Y.
1871. Preston, Mahlon, M.D., Norristown, Pa.
1867. Price, Elias C., M.D., 110 N. Eutaw St., Baltimore, Md.
1873. Prindle, Clarence W., M.D., Grand Rapids, Mich.

1858. Pulsifer, M. R., M.D., Ellsworth, Me.
1858. Pulsifer, N. G. H., M.D., Waterville, Me.
1844. PULTE, JOSEPH H., M.D., 293 Walnut St., Cincinnati, O.
1873. Purdy, W. S., Dr., Corning, N. Y.
1872. Quick, Theodore, M.D., 155 E. 127th St., New York.
1854. Randel, Wm. H., M.D., 1 Clinton Place, Albany, N. Y.
1869. Raue, Charles G., M.D., 121 N. 10th St., Philada., Pa.
1848. RAYMOND, JONAS C., M.D., 248 Genesee St., Utica, N. Y.
1869. Read, Herbert H., M.D., Windsor, Nova Scotia.
1870. Read, James S., M.D., St. Louis, Mo.?
1860. Reading, Edward, M.D., Hatboro, Pa.
1848. READING, J. R., M.D., Somerton, Pa.
1860. Reed, Jacob, Jr., M.D., Broad bel. Poplar St., Philada.
1857. Reed, William A., M.D., 123 N. 11th St., Philadelphia.
1870. Reinhold, H. E., M.D., Williamsport, Pa.
1869. Reud, William R., M.D., Tremont House, New York.
1869. Reynolds, Herbert, M.D., Bridesburg, Pa.
1870. Reynolds, Wm. B., M.D., Carlisle, Pa.
1871. Ricardo, Norton C., M.D., Passaic, N. J.
1869. Richards, George W., M.D., Orange, N. J.
1847. RICHARDSON, EDW. T., M.D., 141 Montague St., Brooklyn, N. Y.
1872. Richardson, B. M., M.D., 127 Noble St., Brooklyn, N. Y.
1873. Robertson, E. W., M.D., Cleveland, O.
1869. Robinson, Charles F., M.D., 83 Saratoga St., E. Boston, Mass.
1866. Robinson, S. A., M.D., Laporte, Ind.
1872. Robinson, Henry D., M.D., New Brunswick, N. J.
1869. Rockwith, Frank A., M.D., East Saginaw, Mich.
1849. RODMAN, WILLIAM W., M.D., New Haven, Conn.
1869. Rorabacher, Miles, M.D., Litchfield, Mich.
1872. Roseberry, Chas. J., M.D., Easton, Pa.
1865. Rankin, John S., M.D., Pittsburg, Pa.
1844. ROBINSON, HORATIO, M.D., Auburn, N. Y.
1858. Rosman, John G., M.D., 70 Pierrepont St., Brooklyn, N.Y.
1866. Rousseau, L. M., M.D., 294 Penn Av., Pittsburg, Pa.
1872. Rowsey, Wm. Thos., M.D., Toledo, O.
1873. Runnels, O. S., M.D., Indianapolis, Ind.
1865. Rush, R. B., M.D., 120 Main St., Salem, O.
1848. RUSSELL, GEORGE, M.D., 14 Lynde St., Boston, Mass.
1869. Sage, William H., M.D., Unionville, Conn.
1860. Sanders, John C., M.D., Cleveland, O.
1859. Sanders, Orren S., M.D., 511 Columbus Av., Boston, Mass.
1867. Sanford, Charles E., M.D., Bridgeport, Conn.
1869. Sanford, E. W., M.D., Brookline, Mass.

1869. Sanger, Thaddeus E., M.D., Littleton, N. H.
1871. Sargent, Rufus, M.D., 1609 Mt. Vernon St., Philad'a.
1871. Sartain, Harriet J., M.D., 210 Franklin St., Philad'a.
1867. Sawin, Isaac W., M.D., Providence, R. I.
1847. SAWYER, B. E., M.D., Haverhill, Mass.
1870. Savage, Jas. W., M.D., Wiscasset, Me.
1867. Scales, Edward P., M.D., Newton, Mass.
1859. Scales, Thomas S., M.D., Woburn, Mass.
1873. Schatz, W. F., M.D., Columbus, O.
1873. Scheurer, E. M., M.D., Clearfield, Pa.
1844. SCHMIDT, J., M.D., 92 Eutaw St., Baltimore, Md.
1873. Schmucker, Elhanan Z., M.D., Reading, Pa.
1873. Schmucker, Francis R., M.D., 68 Cranford St., Pittsburg, Pa.
1868. Schneider, N., M.D., Cleveland, O.
1871. Scott, James L., M.D., Coatesville, Pa.
1872. Scott, Chester W., M.D., Lawrence, Mass.
1872. Scott, Emma, M.D., 217 W. 12th St., New York.
1869. Seeger, Ferdinand, M.D., 718 Lexington Av., N. Y.
1867. Seeley, N. R., M.D., Elmira, N. Y.
1868. Seidlitz, George N., M.D., Keokuk, Iowa.
1869. Seip, C. P., M.D., Pittsburg, Pa.
1867. Seymour, D. E., M.D., Calais, Me.
1847. SHACKFORD, RUFUS, M.D., Portland, Me.
1867. Shaffer, Levi, M.D., Kingston, N. Y.
1867. Shearer, Thomas, M.D., 97 N. Charles St., Baltimore, Md.
1866. Sheffield, H., M.D., 21 S. Vine St., Nashville, Tenn.
1870. Sheldon, J. W., M.D., Syracuse, N. Y.
1846. SHEPARD, A., M.D., Glendale, O.
1871. Shepherd, Jas. S., M.D., Petaluma, Cal.
1859. Sherman, John H., M.D., Lynn, Mass.
1857. Shipman, George E., M.D., 17 N. Peoria St., Chicago.
1871. Shivers, Bowman H., M.D., Haddonfield, N. J.
1871. Shreve, Joseph, M.D., Haddonfield, N. J.
1854. Sisson, Edward R., M.D., New Bedford, Mass.
1844. SKIFF, CHARLES H., M.D., New Haven, Conn.
1869. Skiff, Paul C., M.D., New Haven, Conn.
1853. Skiles, F. W., M.D., 76 Clinton St., Brooklyn, N. Y.
1867. Sloan, Henry S., M.D., Binghamton, N. Y.
1869. Slocomb, C. C., M.D., Millbury, Mass.
1846. SMALL, ALVIN E., M.D., 583 Wabash Av., Chicago, Ill.
1868. Small, Alvin E., Jr., M.D., Lincoln, Ill.
1868. Small, Henry N., M.D., 275 W. Monroe St., Chicago, Ill.
1866. Smedley, Robert C., M.D., West Chester, Pa.
1869. Smith, Amos B., M.D., Geneva, N. Y.
1848. SMITH, D. S., M.D., 402 Michigan Av., Chicago, Ill.

1869. Smith, Ezra P. K., M.D., Auburn, N. Y.
1870. Smith, Franklin B., M.D., Corunna, Mich.
1860. Smith, Henry M., M.D., 107 Fourth Avenue, New York.
1869. Smith, J. Heber, M.D., Melrose, Mass.
1870. Smith, J. T. S., M.D., 107 Fourth Avenue, New York.
1869. Smith, St. Clair, M.D., 3 E. 33d St., New York.
1869. Smith, Stebbins A., M.D., St. Alban's, Vt.
1860. Smith, Thomas F., M.D., 62 E. 128th St., New York.
1871. Smith, T. Hart, M.D., 805 N. 10th St., Philadelphia, Pa.
1873. Smith, Chester, M.D., Portland, Mich.
1867. Sommer, G. J. M., M.D., 119 Second St., New York.
1867. Sonnenschmidt, C. W., M.D., Washington, D. C.
1871. Southwick, Augustus B., M.D., Rome, N. Y.
1868. Southwick, D. E., M.D., Ogdensburg, N. Y.
1869. Spalding, Henry E., M.D., Hingham, Mass.
1859. Sparhawk, George E. E., M.D., Gaysville, Vt.
1850. Springsteed, David, M.D., 72 Hudson St., Albany, N. Y.
1868. Squier, A. F., M.D., Newport, R. I.
1869. Stearns, George W., M.D., New Bedford, Mass.
1870. Steele, J. A., M.D., Dixon, Ill.
1870. Stephenson, H. C., M.D., Lowell, Mich.?
1846. STEVENS, C. A., M.D., Scranton, Pa.
1852. Stevenson, T. Collins, M.D., Carlisle, Pa.
1871. Stiles, James E., M.D., Lambertville, N. J.
1873. Stilson, E. H., M.D., Keokuk, Iowa.
1858. Stone, Henry E., M.D., Fairhaven, Conn.
1871. Stouffer, David R., M.D., Chambersburg, Pa.
1869. Stow, T. Dwight, M.D., Fall River, Mass.
1870. Streeter, J. W., M.D., 71 37th St., Chicago, Ill.
1871. Streets, Jacob G., M.D., Bridgeton, N. J.
1869. Strong, O. G., M.D., Canton, Ill.?
1870. Stout, H. R., M.D., 264 W. Washington St., Chicago, Ill.
1865. Sumner, Charles, M.D., 16 S. Clinton St., Rochester, N. Y.
1867. Swan, Samuel, M.D., 13 W. 38th St., New York.
1844. SWAZEY, GEORGE W., M.D., Springfield, Mass.
1867. Swift, Solomon E., M.D., Colchester, Conn.
1869. Swits, Harmon, M.D., Schenectady, N. Y.
1848. TAFT, CHARLES A., M.D., Hartford, Conn.
1853. Talbot, I. T., M.D., 31 Mt. Vernon St., Boston, Mass.
1872. Talmage, John F., M.D., 155 Joralemon St., Brooklyn, N. Y.
1871. Tantum, Jos. R., M.D., Wilmington, Del.
1869. Taylor, Charles W., M.D., Newtonville, Mass.
1868. Temple, John T., M.D., St. Louis, Mo.
1847. THAYER, DAVID, M.D., 94 Boylston St., Boston, Mass.

1869. Thomas, Amos R., M.D., 937 Spruce St., Philadelphia.
1871. Thomas, Wm. W., M.D., Wilmington, Del.
1867. Thompson, John H., M.D., 36 E. 30th St., New York.
1867. Thompson, Virgil, M.D., 234 W. 11th St., New York.
1872. Tibbles, Geo. N., M.D., Jersey City, N. J.
1867. Tompkins, Silas B., M.D., 884 Broad St., Newark, N. J.
1860. Toothaker, C. E., M.D., 1717 Francis St., Philadelphia.
1866. Townsend, E. W., M.D., Greensburg, Pa.
1860. Trites, David T., M.D., 4323 Main St., Manayunk, Philadelphia.
1869. Trites, William Budd, M.D., 4323 Main St., Manayunk, Philadelphia.
1870. Trott, S. E., M.D., Wilmington, Ill.
1871. Tuller, Emory R., M.D., Vineland, N. J.
1870. Van Liew, F. H., M.D., Aurora, Ill.
1870. Van Norman, H. B., M.D., Cleveland, O.
1873. Van Norman, E. V., M.D., Springfield, O.
1868. Vastine, Charles, M.D., St. Louis, Mo.
1866. Verdi, Ciro S., M.D., New Brunswick, N. J.
1858. Verdi, Tullio S., M.D., 268 G St., Washington, D. C.
1871. Vincent, Frank L., M.D., Troy, N. Y.
1871. Von Tagen, Charles H., M.D., Cleveland, O.
1867. Wadsworth, T. D., M.D., 970 W. Madison St., Chicago, Ill.
1869. Walker, Mahlon M., M.D., 5262 Germantown Av., Phila.
1870. Wales, R. P., M.D., Lenark, Ill.
1865. Wallace, M. W., M.D., Alleghany, Pa.
1872. Walter, Ziba D., M.D., Marietta, O.
1844. Ward, Isaac M., M.D., Newark, N. J.
1856. Ward, John A., M.D., 39 E. 19th St., New York.
1844. Ward, Walter, M.D., Mount Holly, N. J.
1872. Ward, Jas. H., M.D., Brooklyn, N. Y.
1869. Ware, William G., M.D., East Dedham, Mass.
1848. Warner, Lewis T., M.D., 39 E. 19th St., New York.
1872. Warren, John K., M.D., Palmer, Mass.
1873. Warren, H. Anna, M.D., Emporia, Kan.
1873. Waters, M. H., M.D., Terre Haute, Ind.
1854. Watson, William H., M.D., 270 Genesee St., Utica, N. Y.
1867. Webb, E. Cook, M.D., Orange, N. J.
1865. Webster, W., M.D., 127 Main St., Dayton, O.
1869. Weeks, Lorrain T., M.D., Laconia, N. H.
1844. Weld, C. M., M.D., Norfolk House, Boston Highlands, Mass.
1848. Wells, Lucien B., M.D., 225 Genesee St., Utica, N. Y.
1844. Wells, P. P., M.D., 84 Clinton St., Brooklyn, N. Y.
1871. Wentworth, Walter H., M.D., Pittsfield, Mass.

1873. Wenz, James, M.D., Buffalo, N. Y.
1866. Werder, Max J., M.D., San Francisco, Cal.
1859. Wesselhœft, Conrad, M.D., 302 Columbus Av., Boston, Mass.
1867. Wesselhœft, Walter, M.D., Cambridge, Mass.
1859. Wesselhœft, Wm. P., M.D., 52 Boylston St., Boston, Mass.
1869. West, Benjamin H., M.D., Neponset, Mass.
1858. West, Edwin, M.D., 42 W. Washington Pl., New York.
1873. West, James A., M.D., Geneseo, N. Y.
1866. Wetmore, John M., M.D., 278 Fourth Av., N. Y.
1870. White, C. C., M.D., Columbus, O.
1867. White, J. Ralsey, M.D., 228 E. 124th St., New York.
1869. White, Joseph N., M.D., Amsterdam, N. Y.
1860. White, Theodore C., M.D., 16 S. Clinton St., Rochester, N. Y.
1867. White, W. Hanford, M.D., 228 Fifth Av., New York.
1873. Whitfield, Isaiah J., M.D., Grand Rapids, Mich.
1869. Whiting, Lewis, M.D., Danvers, Mass.
1869. Whittaker, E. B., M.D., Gaysville, Vt.
1869. Whittier, Daniel B., M.D., Fitchburg, Mass.
1870. Whittington, James J., M.D., Windsor, N. J.
1847. WHITTLE, JOSHUA F., M.D., Nashua, N. H.
1859. Wild, Edward A., M.D., Austin, Nevada.
1855. Wilder, Louis de V., M.D., Hartford, Conn.
1853. Wilkinson, Ross M., M.D., 97 E. State St., Trenton, N. J.
1867. Willard, L. H., M.D., Alleghany, Pa.
1869. Willis, L. Murray, M.D., E. Charlestown, Mass.
1871. Williams, Thomas C., M.D., 567 N. 5th St., Philadelphia.
1857. Williamson, Walter M., M.D., 2005 Columbia Av., Phila.
1872. Williamson, Matthew S., M.D., 29 N. 11th St., Phila.
1859. Wilson, G. H., M.D., West Meriden, Conn.
1865. Wilson, T. P., M.D., Cleveland, O.
1873. Wilson, M. T., M.D., San Francisco, Cal.
1872. Winslow, Caroline B., M.D., Washington, D. C.
1854. Wood, J. B., M.D., West Chester, Pa.
1860. Wood, O. S., M.D., Omaha, Neb.
1859. Woodbury, J. H., M.D., 58 Temple St., Boston, Mass.
1870. Woodbury, William H., M.D., 201 W. Washington St., Chicago, Ill.
1865. Woodhouse, Charles, M.D., Rutland, Vt.
1857. Woodruff, Francis, M.D., Ann Arbor, Mich.
1868. Woods, J. U., M.D., Holyoke, Mass.
1873. Woods, Mary A. B., M.D., Erie, Pa.
1868. Woodvine, Denton G., M.D., 739 Tremont St., Boston, Mass.

1870. Woodward, Alfred W., M.D., 140 Warren Av., Chicago, Ill.
1869. Woodward, A. M., M.D., 50 W. 29th St., New York.
1873. Woodyatt, W. H., M.D., 90 Washington St., Chicago, Ill.
1870. Worcester, Samuel H., M.D., Salem, Mass.
1872. Worcester, Samuel, M.D., Burlington, Vt.
1870. Worley, P. H., M.D., Davenport, Ohio.
1870. Worthington, A. F., M.D., Cincinnati, O.
1869. Wright, A. R., M.D., 162 Pearl St., Buffalo, N. Y.
1858. Wright, Albert, M.D., 1 Bedford Av., Brooklyn, E. D., N. Y.
1867. Wright, Wm., M.D., 96 5th St., Brooklyn, E. D., N. Y.
1858. Youlin, John J., M.D., 130 Grove St., Jersey City, N. J.

Corresponding Members.

1873. Dr. Tommaso Cigliano, Naples, Italy.
1873. Dr. Sambhul Mukhopàdhyàya, Wellington Square, Calcutta, India.

APPENDIX

TO THE

PROCEEDINGS OF THE TWENTY-SIXTH SESSION.

THE PRELIMINARY MEETING.

As mentioned in the "Proceedings," the "preliminary meeting" was held at the residence of Dr. N. Schneider, on Prospect Street, and was one of the most delightful reunions ever attended by those who had the good fortune to be present. In addition to the members of the Institute and the ladies who accompanied them, a number of prominent citizens of Cleveland and their ladies were also present, and lent additional grace and dignity to the occasion. The warm welcome of the host and hostess, and their many polite attentions to their guests, will long dwell in the memory of those who partook of their hospitality.

THE BANQUET.

A banquet was given in honor of the Institute by the physicians of Ohio on Wednesday evening, June 4th, which was attended by the members of the Institute and their ladies, and a number of other invited guests. The affair, which was a very enjoyable one, came off in the Cleveland Rink, which was handsomely decorated for the occasion. An excellent band of music added greatly to the pleasure of the occasion.

After the good things provided had been disposed of, a number of speeches were made in response to various sentiments; Dr. E. C. Franklin, of St. Louis, Mo., officiating as Master of Ceremonies.

The first toast was:

"The memory of Samuel Hahnemann,"

Which was received in silence, followed by an appropriate musical selection.

The second toast proposed was as follows:

"The veterans of Homœopathy, past and present."

This sentiment was responded to by the President of the Institute, Dr. A. E. Small, of Chicago, and by Dr. S. Lilienthal, of New York.

DR. SMALL said:

LADIES AND GENTLEMEN: The sentiment to which my friend has just given utterance, brings to the mind the early days of homœopathy in this country, and the men of culture and intellect who were its pioneers, many of whom have passed on from this life to the glories of the life to come, while many yet remain with us. I can remember when men were afraid and ashamed to avow their faith in homœopathy, and took the despised globules of the homœopathist behind the door, for fear of the laughter and scorn of their neighbors; but it was not so with the practitioners of the new art of healing in these early days. They were bold and determined in acknowledging their belief and their faith, and in fighting against the hydra-headed monster, allopathy, from the attacks of which they had no rest. And they conquered, ladies and gentlemen; they fought the good fight, and came forth the victors; and they lived, many of them, to see homœopathy making its way steadily as a reliable system of therapeutics, amongst the most intelligent of our people. It used to be the fashion to cry that homœopathy was going down, and even at this day, where the wish is father to the thought, we sometimes hear the same croaking sound; and it is going down—down deeply into the hearts of the people, and into their minds.

You have voted to-day that those of us who have been members of the Institute in good standing for twenty-five consecutive years or more are the veterans of the Institute, and have accorded us a special privilege as such. I desire to thank you on behalf of the veteran corps, and I am very much pleased to know that there is such a feeling of respect for the fathers of our school in this country. America, Dr. Hering says, is the home of homœopathy, and in this enlightened country it is making its greatest headway. This fact is due, in great part, to the character of the men who you have honored by the toast, the veterans in the cause.

DR. LILIENTHAL then followed with the following remarks:

The veterans of homœopathy, past and present. A toast to the dead is commonly received in silence, and justly. But of our dead we may ask,

O death, where is thy sting?
O grave, where is thy victory?

The founder of our therapeutical law, and most of his early disciples, have changed their habiliments, and taken unto themselves their heavenly garments. But are they dead? No, a thousand times no!

Father Hahnemann is not here, and Father Hering is not here, and yet they are with us in spirit, and they cheer us onward and forward, until that goal is reached which is the pinnacle of all our hopes.

Veterans of homœopathy! Yes, we of the "Old Guard" may be advanced in years, and the snow of many winters may have whitened our locks, but our hearts are ever young, our strength is steadily increasing; it never can give out as long as we are supported in such a faithful and zealous manner by our younger brethren. Ladies and gentlemen of the American Institute, dead or living the veterans will be always with you, though we of the senior class may be now allowed to look back with pride at the battles fought and the victories won in our cause.

The middle class, under the able leadership of men like Talbot, the vanquished and still the victor, and like Dunham, of New York, are ever ready to carry the banner of homœopathy to every corner of our country.

You of the junior class of the Institute have a holy mission intrusted to your care. Guard it well with all the zeal, with all the fire of a youthful lover, so that, when in years to come you will be called the veterans of this Institute, homœopathy may be acknowledged by every one to be the law of medical therapeutics.

The third toast of the evening was:

"The *Triumviri Americani:* WASHINGTON, the Father; LINCOLN, the Martyr; GRANT, the Warrior."

This toast was responded to by the Hon. George Willey, U. S. District Attorney for Cleveland, and President of the Cleveland Homœopathic Hospital College.

MR. WILLEY spoke as follows:

It would be very difficult within the ordinary limits and in the usual manner of a banquet speech, to respond to a sentiment which groups together three men so great, that each one stands as a central figure to a period and volume of affairs, momentous to the last degree, in the history of our country. I only venture to attempt a response at all, by asking your permission to substitute for any words of my own, three brief pen pictures painted by other hands. First, then, of WASHINGTON, may I bring to the recollection of the readers of Thackeray, the fact that the great English novelist, in his "Virginians," in a few masterly paragraphs, placed our Washington upon the canvas in a way

that Stuart or Trumbull never surpassed. Certainly it will be always with a thrill of pride that Americans will read these words: "It was ordained by Heaven, and for the good, as we can now have no doubt, of both empires, that the great Western Republic should separate from us; and the gallant soldiers who fought on her side, their indomitable and heroic Chief above all, had the glory of facing and overcoming, not only veteran soldiers amply provided and inured to war, but wretchedness, cold, hunger, dissensions, treason within their own camp, where all must have gone to rack, but for the pure, unquenchable flame of patriotism that was forever burning in the bosom of the heroic leader. What a constancy, what a magnanimity, what a surprising persistence against fortune! Washington before the enemy was no better nor braver than hundreds that fought with him or against him: but WASHINGTON, the Chief of a nation in arms, doing battle with distracted parties; calm in the midst of conspiracy; severe against the open foe before him and the darker enemies at his back; WASHINGTON, inspiring order and spirit into troops hungry and in rags; stung by ingratitude, but betraying no anger, and ever ready to forgive—in defeat invincible, magnanimous in conquest, and never so sublime as on that day when he laid down his victorious sword and sought his noble retirement—here indeed is a character to admire and revere; a life without a stain, a fame without a flaw, *Quando invenies parem?*" "I do own and think, he was *all mankind's superior.*"

Next, of ABRAHAM LINCOLN. It seems natural for us to refer to him as the highest type of a statesman, purely American, not coming up from the schools, but born of the people. It was a great mistake when a late biographer of Seward failed to acknowledge the fact, that in perilous times there is something higher than learning or diplomacy or statecraft, and that Lincoln had it. He had such faith in the people, and the people such faith in him, and both such faith in the Great Ruler of nations, that his life seemed an inspiration. And here let me paraphrase, as has been done before by others, from that noble ode of the Poet Laureate of England, upon the death of Wellington, lines so singularly applicable—

"Oh! friends, our chief state Oracle is dead.
Mourn for the man of long-enduring blood,
The statesman, moderate, resolute,
Whole in himself, a common good.
Mourn for the man of amplest influence,
Yet clearest of ambition's crime,
Our greatest, yet with least pretence,
Rich in saving common sense,
And as the greatest only are,
In his simplicity sublime."

"He is gone who seemed so great—
Gone! but nothing can bereave him
Of the force he made his own;
Being here, and we believe him,
Something far advanced in state,
And that he wears a truer crown
Than any wreath that man can weave him."

And again, of GRANT, that man of iron, on whom the great Lincoln and the nation, when others failed, leaned for support, let me draw from the same grand ode:

"A people's voice! We are a people yet,
Tho' all men else their nobler dreams forget,
We have a voice, with which to pay the debt,
Of boundless love and reverence, or regret,
To those great men who fought and kept (the Union) ours.

"Foremost Captain of his time,
In praise and in dispraise the same;
A man of well-attempered frame,
In full acclaim, a people's voice,
The proof and echo of all human fame—
A people's voice, when they rejoice
Attest their great Commander's claim."

The fourth regular sentiment proposed was:

"The State of Ohio: young in years, yet in rank the third of the Ameri-

This sentiment was responded to at length by Judge Payne, of the Court of Common Pleas, of Cleveland.

The fifth toast was as follows:

"Cleveland: The beautiful city: the pride of the State. May her hospitals ere long equal her other charities."

An eloquent response was made to this sentiment by W. H. White, Esq., of Cleveland, a member of the Board of Trustees of the Cleveland Homœopathic Hospital College.

The sixth toast was the following:

"Our Medical Colleges. They hold a sacred trust; as sentinels they guard our portals. Let those who have them in charge remember that they are responsible for the character of those who gain admission to the profession."

S. R. BECKWITH, M.D., of Cincinnati, having been called upon to respond to this sentiment, did so as follows:

LADIES AND GENTLEMEN: This is a stereotyped toast, and one to which I am frequently called to respond. If you look over the reports of the Institute meetings for the last quarter of a century, or of the State or other societies, you will see my

speech there, and can read it at your leisure. The Cleveland Homœopathic College was the first homœopathic college in the United States, and my friend Judge Payne was the first president of a homœopathic college. The college was organized in 1847, but did not commence its operations until 1849, and in the meantime, the college in Philadelphia was organized and commenced its work, slipping in ahead of us by a whole year. In those days we had but few students, but they were good ones. Since that day colleges have sprung up all over the land, Boston being the last, and are doing a glorious work for homœopathy.

Just twenty years ago last March, we in Cleveland here were hunted and driven by a lawless mob, and our college property was destroyed by the hands of the ruthless barbarians. These ruffians were not punished as they should have been, because it was *only* a homœopathic college had been invaded. A different state of affairs exists now, as witness this large and intelligent audience here to-night, and homœopathy and homœopaths command the respect of the community of this city, and of every other place in the United States.

I find that the usual toast—our Colleges—has something coupled with it this time. We are told that they hold a sacred trust and guard the portals of the profession, and those who have them in charge are implored to guard well their trust, as they are responsible for those who enter the profession. Let me say to you, friends and fellow-members, that we who have in charge the medical colleges of our school, seldom get fee or reward for our services, and work for the interests of the whole profession. We have tried and are trying to do our duty by you, and I would say to you, look to it that you do your duty by us. Too many of you send your students to allopathic colleges. There was a time when there might have been some excuse for this, when our colleges were not the equals of those of the allopathic school, but that time exists no longer, and there is now no excuse for such recusancy to your trusts. Support our colleges in every way you can, and they will do their part to uphold and maintain the honor, dignity, and learning of the profession.

The seventh toast was:

"Our Medical Literature: It serves as our daily food; it is both stimulant and condiment; things fluid and solid. Pray that it may have no admixture of poison."

Dr. I. T. Talbot, of Boston, responded briefly to this sentiment, in a speech referring to homœopathic literature, in the past and in the present; contrasting the earlier publications of

the school with the splendid volumes now issued annually by our prominent publishing houses.

DR. R. LUDLAM, of Chicago, also replied to the toast, having been called upon to do so, in the following terms:

MR. PRESIDENT, LADIES AND GENTLEMEN: The sentiment given includes the subject of *Medical Journalism*, and, with your permission, I will speak to it. For nearly twenty years I have been connectod with the medical press of this country; during that time great changes and improvements have taken place in its management and products. At first there were very few journals, and it was simply impossible for their editors to glean more than a few papers of value. Then our colleges, our hospitals, dispensaries, and our medical societies, were few and far between. There was no such scientific yield as now. The medical news, the clinical experience, the ripe observations in the various specialties, the study of the different branches of medicine and surgery in the light of improved facilities, were unknown. Of legitimate matter for a monthly, or a quarterly periodical, there was not half enough to fill its pages, consequently the remaining space was largely filled or padded with sectarian articles, which doubtless served their purpose at the time, but which, now that we have reached the *post-bellum* period, are not very creditable to our literature.

Then we needed few journals, now we have many. Then there was more space than could be filled with the practical yield of the times; now we are literally overrun with papers and essays and reports, for which it is often impossible to find room. Then the question with our editors was, "What can we get for our readers, and who will write for us?" Now it is not, "What have we to publish?" but "What can we leave out of our issue?" Then our journals were chiefly of a denominational and domestic type, but now they are more strictly scientific and professional.

No one, I apprehend, can doubt that this change will dignify and ennoble the calling of those who conduct our journals, or that its effect will be to improve the character and the tone of our periodical literature. With the relative increase of medical news from all sections, our monthlies are as indispensable to the physician as the daily paper is to the merchant; and our quarterlies are as necessary to him also as the larger periodical of the secular press are to the scholar and the scientist. There is room enough for both, and for all of them.

Therefore, Mr. President, and members of the American Institute, I congratulate you that the disagreeable days and duties of the past in medical journalism are passed and gone; and that we are on the eve of realizing the more grateful and wholesome

fruits of professional industry, liberality, and progress. We have learned that, in order for the preservation of what is worth keeping in our current literature, there need be no vinegar in the ink with which it is printed. We know, from actual experience, that the fields to be cultivated do not need to be drenched with the muddy torrent of invective. We have discovered that the duties, and courtesies, and responsibilities, of those who conduct and those who support our medical journals, are mutual and reciprocal, and must be perpetual. And we believe that the day is at hand when our editors and correspondents will cease to injure our cause by turning State's evidence against members of their own household; and when we can peaceably entertain and defend our personal views in accordance with good sense and good taste, as well as with the liberal spirit of the age in which we live.

DR. E. C. FRANKLIN then announced the eighth toast, as follows:

"The old men, full of years: the young men full of strength. They bind the past to the future, and the present like a keystone, holds them in happy conjunction."

This sentiment elicited responses from Dr. George W. Swazey, of Springfield, Mass., in behalf of the seniors, and from Dr. Pemberton Dudley, of Philadelphia, in behalf of the juniors. Each of these gentlemen made excellent and appropriate addresses.

The last toast of the evening was then read by Dr. Franklin, and embodied the following sentiment:

"Modern Science: Her magic wand brings to our view facts and fancies more wondrous than the dream of Aladdin."

This brought out Dr. T. P. Wilson, of Cincinnati, Ohio, who responded as follows:

I can but count it a very high and undeserved honor, to be called upon at this time to champion the deeds of modern science. Much as I love its investigations, captivated as I am by the splendor of its achievements, and enthusiastic as I confess myself to be in anticipation of its future success, I shrink back at the thought of standing as its representative before this assembly of learned men and women.

It may surprise you somewhat to be told, that the origin of the world, and the mode of its maintenance, are yet open questions to certain minds. The dear old catechism we took in with our mother's milk, had, as you know, a very happy style of settling these vexing questions. But like everything else, the authority of the catechism has come to be disputed. The world

is increasingly full of human beings, who stand ready to divide honors with the Almighty, in having given birth to this, if not other planets; and the boundaries of their self-sufficiency often o'erleaps heaven's farthest verge.

As for the administration of the government of the universe, the catechism is clearly at fault. I know a pothouse politician, elevated to the dignity of representing one of our city wards, whose responsibilities in the matter of controlling things generally are simply measureless. And since the world of humanity began, what with warriors, kings, statesmen, and politicians generally, we have had a grand surfeit of management. We have been blessed with a countless number of self-sacrificing beings, willing to relieve the Almighty of all further control of the universe, to which he has come to have a doubtful ownership. Whatever I may think of that much-mooted question of evolution, by which as some suppose, through the universal and unchangeable action of law, there has been developed out of nebulosity, out of star-dust, the grand procession of suns and planets, or, to narrow the question somewhat, there has been produced this little world of ours, with its broad unfathomed oceans, its yet unsurveyed continents, its measureless atmospheric sea, all teeming with life, with vegetable and animal existences, too varied and countless for computation, and all these passing though a career of mutations we scarcely recognize, much less comprehend, I repeat that, however true I might think this to be, it never seemed quite fair to exclude from it as many try to do, so much of human agency.

I shall not distress myself about the attempt some are making to rule the Almighty out of the affairs of the universe. The peril is not so great that it needs my interference. I am more concerned that man's agency in the matter be duly recognized. Rather, I may say, I am more anxious that the true causes that are at work in securing the world's progress, be not lightly estimated, or wholly overlooked.

I suppose we hold various opinions upon the question as to man's original condition. Whether he was first made wise and good, and then lapsed into barbarism, or was slowly developed out of barbarism and its antecedent conditions—an *anthropoid* developed into an *anthropos*—I do not need to say, provided I knew, for developed he is, and is still developing from ignorance and feebleness, into wisdom and power; from scattered and nomadic tribes into vast and stable nations; from dwellers in caves and forests, into dwellers in palaces and mighty cities. No longer alarmed and shrinking amid the dynamic energies of the universe, man has risen to hold the sceptre that controls the

forces of nature, and they come like the tamed beasts of the jungle, cringing and fawning at his feet. He stands no longer hopelessly perplexed amid the complex phenomena of nature. Slowly and surely he unweaves their tangled lines. Out of seeming chaos he brings order and beauty; out of lawless chance and blind irresistible fate, he evolves law and harmony.

Nay, more; he stands before the door of the sepulchre of a dead and buried past, and calls it into life again, and bids it tell once more its long-forgotten history. And to crown all, he boldly wrests from the hand of Deity the prerogative of prescience, and with sibylline authority unfolds the future. Not the stately planets only, sweeping tireless in their vast orbits; not the fiery comets only, in their wild flight through measureless space; not these only come to tell of their future transits, eclipses, and revolutions, but the winds, the clouds, the rain, the forked lightning, those wild, untamed *gamins* of nature, who seemingly knew no law, acknowledged no mastery, obeyed naught but their own caprice, these have come and humbly disclosed the mystery of their origin. And now we know of the wind, "whence it cometh and whither it goeth."

But let this suffice. I need never hope to tell all the wonders that have been brought to light by the magic wand of modern science. But here let me give honor to whom honor is due. The human agents concerned in carrying on this grand divine scheme of development, the men by whose ardent labors and fostering care modern science has become what it is, are none other than these sometimes despised and too often traduced men called modern scientists. In no spirit of invidiousness, but with a full and hearty appreciation of their labors, would I give them very high rank among the world's redeemers. What science has been to the world these men have been to science. That they have disturbed the world's serenity; that they have undermined and overthrown broad walls and high towers, wherein dwelt faiths most ancient and precious; that they have torn the human mind away from its moorings, and set it adrift upon the sea of speculation; that they have filled the world with alarm and society with contentions; that they have made clear that which was before doubtful, and cast doubt upon that which before was thought plain,—all this and more is true. But rejoicing as we do in the fruit of their labors, enriched as we are by their toils, and made happy by the good they confer upon mankind, we may well overlook their errors, pardon their vanity, and do high honor to their noble deeds.

The hour being very late, the guests at this juncture slowly dispersed, and thus the pleasant affair terminated.

SECTION II.

REPORT

OF THE

BUREAU OF MATERIA MEDICA, PHARMACY,

AND

PROVINGS.

CONRAD WESSELHŒFT, M.D., ... Boston.
WILLIAM E. PAYNE, M.D., ... Bath, Me.
JABEZ P. DAKE, M.D., ... Nashville, Tenn.
C. C. CROPPER, M.D., ... Oxford, O.
EDWIN M. HALE, M.D., ... Chicago, Ill.
CONSTANTINE HERING, M.D., ... Philadelphia.
WALLACE McGEORGE, M.D., ... Woodbury, N. J.
O. P. BAER, M.D., ... Richmond, Ind.

TO THE

TWENTY-SIXTH SESSION

OF THE

American Institute of Homœopathy.

VOLUME I. NUMBER 7.

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XXXVI.

SPECIAL REPORT

OF A

PLAN FOR THE MORE THOROUGH AND PROPER PROVING OF REMEDIES

AND NOTATION OF SYMPTOMS.

By J. P. Dake, M.D., Nashville, Tenn.

At the annual meeting of the Institute, in Washington, May, 1872, the following resolution was unanimously adopted:

Resolved, That the Bureau of Materia Medica be instructed to consider and submit, at the next meeting of the Institute, a plan for the more thorough and proper proving of remedies and notation of symptoms, for use under the homœopathic law; such as shall exhibit the comparative value of the various symptoms elicited, as well as their full range in the male and female organisms, observed by all the improved means and tests of modern science.

In obedience to such instruction, the attention of the bureau has been given to the subject assigned, and the following is our report.

The homœopathic law requires, in every case, the selection of that remedy the effects of which in the healthy human organism are similar to the manifestations of the disease to be removed. It is evident, therefore, that drug effects or symptoms, manifested in the human organism, are to be traced as far, and noted with as much accuracy, as are the symptoms in any case of disease. Practically, it is of no use to go further or more critically

in the one direction than in the other. If the symptoms in a case of disease are not like those displayed in any drug provings, if there is no simile, then for that case there might as well be no homœopathic law.

We are thus led to the plain principle, that our knowledge of drug symptoms must be coextensive with our knowledge of the symptoms of disease.

The symptoms of disease are studied in the expressions of pain and discomfort gathered from our patients, and in whatever we may observe in their manners, general appearance and morbid products, through the exercise of our senses, aided by all the tests of modern science.

And exactly in the same manner and to the same extent must we study the effects or symptoms of each drug admitted into our Materia Medica.

But the symptoms of disease are before us, the true exponents of morbid conditions and sufferings, awaiting only our full inspection and study, while drug symptoms must be called into being through our agency before they can be the subjects of any study or observation.

I. Our *first step* then toward a Materia Medica, in obedience to the homœopathic law, is to procure full displays of drug influence in the human organism, such as may correspond with those afforded by disease.

To do this the human organism must be subjected to the influence of the several drugs in a manner, to a degree, and under circumstances calculated to exhibit their effects fully and faithfully.

Such exhibitions cannot be made in organisms not in an ordinary or usual state of health, for the palpable reason that, from the complexity of influences or causes operating, there must be a medley of effects, a commingling of drug and disease symptoms indistinguishable.

And such exhibitions cannot be full and faithful unless afforded by both male and female organisms, and then not, except under circumstances in nowise disturbing or counteracting.

Nor can they be full and faithful if the drugs administered be not, in form and quantity, fitted and sufficient to traverse the

varied avenues of the organism so as to reach and influence the parts over which each may have special control.

And the more active drugs, especially such as might produce fatal poisoning or structural lesions, must be allowed to display their character and power by a comparative proving in animals lower than man.

Nor can the demands of the homœopathic law be satisfied with, nor a sufficient Materia Medica be formed out of, the drug symptoms displayed in one organism of each species and of each sex.

Some of the symptoms might be due to an idiosyncrasy in the individual, some to a temporary disturbing cause from without, and some to the imagination or fancy of the prover and not at all to the drug under trial.

The great uncertainty attaching to all the symptoms reported by a single prover gives them but little value in the hands of the homœopathic practitioner.

Every member of the human family being subject to the influence of morbific causes, the ravages of disease, and it being impossible for us to learn the exact effects upon them individually of all the remedies that the law similia might point out for their relief when sick, it is essential for us to know their effects upon so large and so representative a number, that it would be entirely safe to conclude that, under like circumstances, the effects or symptoms reported would be the same in the large majority, if not all of the human family.

In no other manner can the constant symptoms of a drug be distinguished from the casual, nor the characteristic from the common.

The concurrent experiences of a majority of a large number of provers may be safely regarded as the *constant symptoms* of the drug under trial, while those of the few must he taken as the casual and uncertain.

The concurrent experiences of the largest number of provers beyond a majority, not usual to them during other provings, must be regarded as *characteristic symptoms* of the drug under trial, while those of the minority occurring as well in their provings of other drugs, must be taken as the *common*, or least valuable of all.

II. Having procured full and faithful displays of drug effects or symptoms, our *second step* under the law similia is to have them described in clear and exact terms.

Symptoms perceptible only to the provers themselves, usually termed subjective, may be stated at once, and in the order of their occurrence. As they consist chiefly of abnormal sensations to which no outward tests can be applied, they require only a faithful description.

And every description must be intelligible and useful only as localities and sensations are given according to a common and fixed standard, or chart of regional anatomy, and in language at once clear and precise.

But the symptoms discernible to others than the provers—objective symptoms—must pass through a course of rigid scrutiny, wherein every means calculated to aid the senses must be employed.

From the most obvious to the most hidden,—from the color of the tongue to the faintest shade upon the fundus oculi,—from the purulent discharge of a common boil to the characteristic molecules of hepatic abscess, every exponent of abnormal action or condition, possible in the prover's organism, must be carefully and fully examined before it can be ranked among the sure symptoms of a particular drug, and as such be accorded a place in the Materia Medica.

III. Again, as the homœopathic law requires a comparison to be made, a similarity to be traced between the symptoms of disease on the one hand and the symptoms of drugs on the other, and as it is entirely impracticable, if not impossible, for the physician in each case requiring a remedy to compare all the symptoms on the one side with all those on the other, before prescribing, the *third step* in our work must be to secure such a description of drug symptoms as to show plainly which are characteristic and constant, as distinguished from those which may be casual or common.

A similarity between what may be regarded as the characteristic and constant symptoms of a drug, and the most striking and constant symptoms in a case of disease, must satisfy the demands of the law in the selection of the remedy.

IV. The *fourth step* required, relating also to the description or notation of symptoms, is to exhibit them as far as possible in the order of their occurrence.

Symptoms denoting opposite states of the same organ, not given in the order of their occurrence, would very much puzzle the practitioner trying to follow the pointings of the homœopathic law. If, in the effects of a drug proven, he should find the symptom "constipation of the bowels," and soon thereafter, "looseness of the bowels," he could not decide, if the drug be homœopathic to a *constipated* state of the bowels or to *diarrhœa*, unless he was informed which was the *prior* condition.

If told that the constipation was first, then he would know it to be the remedy for *constipation*, or for *diarrhœa preceded* by constipation.

And again, in the array of diseases coming before the practitioner, there may be conditions never experienced by any prover, such, for example, as an abscess of the finger, as in whitlow.

Knowing that the formation of pus in the finger was preceded by "pain, heat, throbbing, and soreness," and finding only these symptoms in the reported provings of a certain drug, he would be justified in selecting it as the truly homœopathic remedy for the abscess.

Thus, having, in the symptoms of a drug, the likeness, in order as well as kind, of the symptoms characteristic of only the early stages of any disease, he would be justified, when called upon to prescribe for it only in its last or destructive stages, in selecting that drug as the proper remedy, especially if, in the comparative provings made on the inferior animals with it, organic lesions were discovered similar to those of the last stages as presented for treatment.

PLAN.

The leading principles that should govern in the development and notation of drug symptoms, useful under the homœopathic law, being now stated, we submit a plan in outline, which, more than any other, would serve to carry them into practical and successful operation.

I. *College of Provers.*

1. There should be an institution, favorably located, say in Washington City, having three departments.

a. A Male,—with not less than ten provers, medical students.

b. A Female,—with not less than six provers, some married and some unmarried.

c. A Comparative,—with a supply of the lower animals, suitable for purposes of drug experimentation.

2. There should be a supply of apparatus and means furnished by the latest improvements in chemistry and physics, for observing, testing, and measuring all discernible departures from healthy states, in the various organisms subjected to drug influence.

3. There should be a competent president, who, in addition to the general superintendence, should have immediate charge of the male department; a vice-president, a female, of education and experience in medicine, to have control in the female department; and a chemist, well versed also in physiology and the natural sciences, to have charge of the comparative department, conducting all experiments therein, applying all critical tests in the other departments, preparing all drugs for proving, and making out a proper description of each, such as may render its identity forever certain.

4. The president, vice-president, and chemist, should constitute the faculty of the college.

II. *Proving of Drugs.*

1. Persons to be accepted as provers, must bring recommendations from at least one well-known physician, showing a favorable condition of health, a good moral character and well-balanced mind, and must be approved by the faculty, upon a careful examination, as to physical and educational qualifications.

2. Persons accepted as provers must be kept, while acting as such, free from all the current expenses of living, and be entitled, each one, to a copy of all the publications of the college for a period of ten years.

3. The provers must be duly instructed in the proper modes

of observing and noting symptoms, and, for at least three days just previous to taking the drug to be proved, should note their sensations or symptoms, and, in their experiences be the subjects of as critical examinations as when afterward under drug influence.

4. The dietetic and general habits of the provers, for a week, at least, previous to taking the drug, should be the same as during the time of proving, and be uniform in all.

5. The dose, ready for proving, must be exactly the same for each one, and be taken in the same hour by all, none however *being* informed as to the name or expected effects of the drug under trial.

6. The dose should consist of several different attenuations, made on the decimal scale, ranging from the lowest in use up to the 200th, put together in water or sugar of milk; and the size of the dose must be graduated with reference to the activity or toxical power of the drug, being small enough not to have poisonous effects, and yet large enough sensibly to impress the organism as to health.

7. The provers must be supplied with all proper apparatus and means for tests, and for keeping a daily record of all the symptoms, in the order of their occurrence, the locations being designated according to a chart of regional anatomy in use by all.

8. A critical examination of objective symptoms must be made, in the case of each prover, by the faculty, at least twice in every twenty-four hours, say from 8 to 10 o'clock in the morning, and from 8 to 10 in the evening, the results being carefully noted on the records of the respective provers, together with any observations considered necessary to define more precisely the location or character of any symptoms already recorded but not with sufficient clearness.

9. After each visit of the faculty and critical examination, the provers shall take fresh sheets for their symptom record, the old being filed away in their proper order.

10. The action of the one dose should be uninterrupted by a repetition, so long as one-third of the provers continue to report its effects, and in no case should the repetition occur in less than twenty-four hours.

11. The second dose must be increased if it shall appear that the first was too small to exhibit the full character of the drug.

12. In the case of active poisons, or drugs that may be supposed to be such, experiments shall first be made upon animals in the Comparative Department.

13. How long the proving of each drug shall be continued, must be decided by the faculty of the college, but in no case should a drug have less time than two weeks; and when another is put on trial, if some of the provers continue to exhibit unmistakable drug symptoms, they should not join in the next proving, but continue their record as before.

III. *Publication of Provings.*

1. At the close of the annual session, which shall be from April 10th to October 10th, the faculty shall arrange and publish a volume, to be called "The Annual Record of Materia Medica," which in the case of each drug, satisfactorily proven, shall contain the following.

a. Its scientific name and synonyms.

b. Its botanical, chemical, or other characteristics.

c. Its history and uses in the past.

d. Its mode of preparation for proving.

e. Its symptoms or effects, transcribed carefully from the records of the several provers, as filed in the order of their dates, the name of each prover standing at the head of his or her complete list.

f. Its effects upon the lower animals, as ascertained in the Comparative Department.

g. A table of the meteorological conditions observed at the station nearest the college, by the Signal Corps of the United States Army, each day, from April 10th to October 10th.

h. A statement of the name, sex, age, temperament, height, and weight of each prover, with any idiosyncrasy revealed or known, and also a full statement of the preliminary symptoms of each, as noted before the proving began.

i. A list of the faculty, board of managers, and officers of

the corporation, and of all the members of the organization sustaining the college, and of all its benefactors.

j. A complete list of all the rules governing the college, especially in the immediate work of proving drugs.

k. A catalogue of the apparatus and tests employed in the different provings.

2. And the faculty shall publish another volume, to be called "The Annual Digest of Materia Medica," in which shall appear *no symptoms reported by any prover as having occurred both immediately before and during his trial of any drug, nor any that has not occurred in the records of more than two provers, while under drug influence;* but all the other symptoms or effects arranged under proper heads, and in keeping with the chart of Regional Anatomy adopted in the college, shall be published in the following order:

a. The characteristic symptoms, those occurring from the drug in the largest number of provers beyond a majority, and not commonly found among the symptoms of other drugs reported by the same provers.

b. The constant symptoms, those occurring from a certain drug in a majority of the provers engaged.

c. The remaining symptoms, each having placed above it a small figure, like the exponents of powers in algebra, to denote in how many provers, above two, it had occurred.

d. The confirmed effects of the drug upon the animals in the Comparative Department.

e. In the case of each drug, the order shall be, after its name and synonyms, the *characteristic* symptoms in their natural order and connections, and then the *constant* symptoms in like manner, and then all the other symptoms divided up under appropriate heads, with their proper exponents of value attached.

IV. *Support of the College.*

The objects of an enterprise may have universal approval, and the plans proposed for its execution may be acceptable, and yet a majority of those interested may hesitate and do nothing, some from attachment to old ways, but most because they see or fancy they see pecuniary difficulties in the way. The urgent necessity

of a more critical and complete proving of drugs, in the formation of a Materia Medica, is acknowledged by every physician in the land. The plain requirements of the homœopathic law, the principles that must govern in the procurement, inspection, and notation of drug symptoms, as we have just stated them, no intelligent member of our school can deny, nor can any valid objections be urged against our plan for the execution of the work indicated, and yet many hesitate and some oppose the great undertaking.

The opposition and the hesitation are not surprising, because not out of the ordinary course of things. The former comes almost entirely from those who have invested more or less time and labor in defective provings, or in the construction of works upon them; while the latter is among those who indulge grave fears that the requisite pecuniary means may be wanting for the support of the proposed college.

That a competent faculty and plenty of good provers may be had no one can doubt.

We cannot here present in detail the machinery of a National College of Provers, with estimates of cost and sources of revenue, but must be content to speak of them in general terms.

1. Three hundred physicians, each contributing one hundred dollars a year, would provide ample means for our purpose, or a larger number, each paying less, or a smaller number, each paying more, would accomplish the same.

2. Governmental aid, through the appropriation of public lands or funds from the Treasury, might afford the requisite means.

3. Donations and legacies from the wealthy and liberal practitioners and friends of homœopathy might soon supply an income which, added to that from sale of books and medicines, would be sufficient for every purpose.

It would be a provoking slander upon the 5000 physicians practicing homœopathy in this country, to say that three hundred of them could not be found, able and willing to contribute one hundred dollars each annually toward securing a Materia Medica in keeping with their fundamental law.

The government has appropriated lands and money repeatedly and by the million, for scientific investigations and surveys,

and for educational purposes, and why not also for the ascertainment of the medicinal qualities and powers of American products?

The grand gift of James Smithson was "to found at Washington an establishment under the name of the Smithsonian Institution, for the increase and diffusion of knowledge among men."

What knowledge can be more needed to-day, and of greater value to all men, than a knowledge of drugs such as may enable physicians to prescribe them more understandingly and successfully, and the people to take them more safely and with surer prospects of relief? Shall we not look hopefully for other Smithsons?

It cannot be that the appreciation of the homœopathic law by the profession is so insignificant, nor that our government has suddenly become so niggardly, nor that the people, blessed with riches, and blessed again in the hour of suffering and danger with homœopathy, can be so insensible to the claims of medical science, the great needs of the healing art, and the good of humanity, as to withhold their aid from the only institution capable of promoting those grand objects at once and successfully.

Nor can it be possible that much longer the slow, halting, stumbling, zigzag march of medical investigation shall stand in dark and dismal contrast with the quick, firm, direct, and successful steps of chemical, geological, astronomical, and other investigations.

XXXVII.

IS THE RE-PROVING OF THE MATERIA MEDICA POSSIBLE UNDER EXISTING CIRCUMSTANCES?

AND IF SO, CAN THE GREAT OBJECT OF PURIFYING IT BE ATTAINED IN THE WAY PROPOSED BY THE ADVOCATES OF RE-PROVING?

By William E. Payne, M.D., Bath, Maine.

Mr. President and Gentlemen of the American Institute of Homœopathy: I had the honor of making a short *appeal* to the Institute last year for the immediate publication of a *complete Materia Medica*—setting forth briefly the grounds of its importance and necessity, and asked a formal and hearty expression of the wishes of the Institute in favor of the enterprise. This *appeal* was accompanied by a resolution unanimously adopted by the Maine Homœopathic Medical Society urging the importance of the same thing.

Both the *appeal* and resolution, on motion of Dr. Guy, of Brooklyn, N. Y., were referred to the bureau of Materia Medica, with instructions to report to that meeting some plan of action with reference to the matter of the communication.

Dr. J. P. Dake, of Nashville, Tenn., in his official position as a member of the bureau, assumed to speak for that body; and the following is a transcript of his report, according to the published proceedings of the Institute for 1872: "The immediate publication of a *full and complete Homœopathic Materia Medica*, urged by the Homœopathic Medical Society of Maine, and re-

ferred to this bureau for consideration, is a subject of such importance, and is so intimately connected with the matter of a more thorough aud correct proving of medicines, upon which we are already instructed to report at the next meeting, we deem it advisable to make no recommendation at this time. The labor and expense of gathering all of our present provings together in several large volumes would be very great, and in our judgment should be deferred till we consider fully the practicability of re-proving of our remedies under conditions and in ways calculated to separate more completely the genuine from the spurious, the characteristic from the common, in our vast collections of drug symptoms."

I do not propose to discuss here the propriety of presenting the above-quoted report as the sentiment of the Bureau of Materia Medica, when several members of that body were absent whose opinions, as a matter of course, could not have been obtained, but come directly to the main points of the report upon which you will be called upon to act in the disposition of another report embodying plans for the re-proving of the Materia Medica, which will come before you at this meeting. I will simply remark here in passing, that the acceptance of Dr. Dake's report without a dissenting voice, is evidence to my mind that the general belief of the profession, with reference to the true method of purifying the Materia Medica, is running in a wrong direction.

That the Materia Medica contains spurious symptoms, and needs a thorough and systematic revision, there can be no doubt. But that this very desirable object of "separating completely the genuine symptoms from the spurious, the characteristic from the common," can be effected by any process of re-proving, no intelligent and sound judgment, based upon actual experience, can for a moment accept. So it seems to me.

Let us look for a moment at the immense labor that the re-proving of the Materia Medica would involve. In the first place, a very large proportion of our provings were made under pressure of the necessities of the case; for it was evident to Hahnemann and his co-workers, that the truth of the homœopathic law could be established only through the provings of drugs upon the healthy organism; and after the law was thus

established, that there was no way to make it generally available in the treatment of diseases, but by largely multiplying the means by this painful process. There was, therefore, not only a necessity for proving drugs, but it was seen to be indispensable that they should be proved with the greatest accuracy. And still with this conscious responsibility and necessity weighing heavily upon the men who began and prosecuted this work, it has required nearly three-quarters of a century to bring the Materia Medica to its present condition. And much more work remains to be done to complete the provings of those drugs now but partially proved, and in proving new drugs which are full of promise to the profession—work enough to engage all the available energies, in the way of proving, for an indefinite period. Now with this work before it, and the necessities that weighed so heavily upon the old provers lifted in a great degree from the shoulders of the present generation of physicians, and added to these the inherent disposition among men to live upon the labor of others, is it reasonable to suppose, or are we warranted in entertaining for a single moment, the idea that the great work of re-proving the seven hundred and fifty or eight hundred remedies which now constitute the Materia Medica will ever be undertaken, however desirable it may seem to be? If there are any in the profession credulous enough to believe that such will ever be the case, I confess unhesitatingly I am not one of them.

But suppose the profession to be fully up to the high anticipations of the advocates of re-proving, and at a given signal begin the work with a settled determination to prosecute it to the end; and that the requisite self-sacrificing spirit should hold out, and the work be accomplished to the last symptom, have we any reasonable ground for believing that it would be better or more perfectly done; that the new provings would be any more free from spurious symptoms than those of the old provers? Or would the "characteristics" be any more likely to be distinguished from the "common" by the new provers, than by the old, from Hahnemann and his co-workers, down?

Would the same influences that operated with the old provers in bringing into the record spurious symptoms, be less likely to operate with the new?

Scarcely a person can be found who does not occasionally have aches and pains, and other morbid sensations, provoked in various ways—sudden atmospheric changes, overexertion, mental disturbances, &c., not to mention another fruitful source of error, namely, an overstimulated imagination, when the prover is watching intently the effects of the drug upon himself. Now these disturbing influences, not being under the control of the will, would be quite as likely to occur during the process of proving as at any other time; and if so, where is the man possessing discrimination sufficiently acute to distinguish and separate the symptoms caused by such casual impressions from those produced by the drug. It seems to me that it would require more than human sagacity to distinguish the *genuine* from the *spurious* symptoms obtained under such circumstances.

There is still another and not less weighty consideration to be urged against the probability that the work of re-proving the Materia Medica would result in anything more perfect than the provings we now have, and that is, the absence of the powerful stimulus that urged the old provers on in the prosecution of their work. With the old provers not only the truth of the law of cure was to be established by the evidence gained from experience, but they had also to furnish means to make the law, if found to be true, available in general practice. Everything therefore depended upon the faithfulness and accuracy of the provings which they were about to institute. Of this necessity Hahnemann was fully conscious, for it is recorded of him that he exacted of his colleagues and co-laborers, a solemn oath that they would record and offer nothing that they did not conscientiously believe to be the genuine effects of the drugs on trial. And not satisfied with this, it is further said that he scrutinized most rigidly each day-book of provings as it was presented to him, and catechized and cross-examined every prover with reference to each individual symptom, and admitted nothing that did not bear upon the face of it conclusive evidence of its genuineness. This course, we are told, was long pursued, and under such rigid scrutiny were a large proportion of our provings made and accepted. But despite of all this close scrutiny and critical revision, spurious symptoms crept into the record, which

have since been detected where they only could be, namely, at the bedside.

In view then of the necessities resting upon the old provers, and the powerful motives and indomitable will by which they were urged forward in the prosecution of their work, is there reasonable ground for hoping that their work would be excelled, or even equalled, by the present generation of physicians, who have much less powerful motives to urge them forward?

If the advocates of re-proving seriously believe that the Materia Medica can be purged of its impurities in the way they propose, let them make good their belief, and illustrate the superiority of their plan by giving to the profession a single example. Let them re-prove, say Phosphorus, Sulphur or Lycopodium, and thus afford the profession an opportunity to judge by comparison whether the complete purification of our Materia Medica could be effected by any process of re-proving which they may have to offer. This would seem to be the most rational and effective way to enlist the attention and co-operation of the profession. And until this be done, I doubt whether sufficient enthusiasm can be infused into the profession to induce it to enter upon a work of such magnitude.

At the bedside, and nowhere else, as it seems to me, should the work of re-proving the Materia Medica begin. However much time may be spent and suffering endured in developing the disease-begetting power of drugs, let every proving be conducted with the most rigid and painstaking care of which the ordinary or extraordinary prover is capable. The whole ground must be retrodden at the bedside; here, and here alone must the final revision be made; and any plan that contemplates the purification of the Materia Medica, and does not include a final revision at the bedside, in my judgment will be found defective.

Instead, then, of holding on to the fallacy that the Materia Medica can be purified by any "new ways and conditions" not known to and followed by our predecessors, or depending for the accomplishment of the work upon the few earnest men who are giving us from time to time "key-notes" and "characteristics," the whole profession should at the earliest moment organize itself into societies, state, county and local, and set itself system-

atically and earnestly to the work of re-proving our remedies at the bedside. Our periodicals would welcome all reports from such organizations, and in due time we should have a pure Materia Medica in fact as well as in name.

The Institute being an authoritative body, should take the initiative here, as I think it should in the publication of a complete Materia Medica, by expressing its views and wishes decidedly in favor of the work, and, if need be, elaborate a plan by which it may be carried on. This work, I am aware, cannot be accomplished by *resolutions* or *legislative enactments*, but must be done by individual members of the profession. It is a work that belongs to the profession at large, and there is no physician who assumes to treat diseases homœopathically but can do something daily to help forward the work. Every member of the profession then, without a single exception, should set himself earnestly to the work of re-proving the Materia Medica at the bedside. Let him make a careful record of his cases, a work that can be easily carried forward if commenced in earnest and in a systematic way; and as many of the symptoms as disappear under the use of the drug employed, he should indicate by some sign which is or may be known by the profession to stand for *verification;* and the symptoms not found in the proving of the drug, but have disappeared under its use, should be indicated by some other sign, and these *verifications and new symptoms*, with the name of the physician attached, should be from time to time, communicated to our journals for publication. By such a mode of procedure, not only the spurious symptoms incorporated with the genuine in the Materia Medica would be discovered and eliminated, but the physician, by thus habituating himself to close observation, would become a more careful and successful prescriber, and avoid the routine course so long and persistently followed by our allopathic brethren, which too many of us, I fear, are strongly inclined to imitate in choosing our remedies.

So much, at least, every physician owes to science, and to the profession of which he is an accepted member. But to facilitate this work of re-proving our drugs at the bedside, a *complete Materia Medica* should be placed within reach of every member of the profession. Upon this question the Institute should ex-

press a decisive opinion, and the individual members thereof should then work together for the common good. Personal ambition, if there be such in the matter of editing the Materia Medica, should be subordinated, at least it should gain no favor with the profession. The man or men best qualified by familiarity with the Materia Medica and the languages, without regard to nationality, should be selected and encouraged to go forward in this all-important work.

XXXVIII.

THE PURIFICATION OF THE MATERIA MEDICA.

By Charles Cropper, M.D., Oxford, Ohio.

Much has been said and written within the past few years in regard to the abridgment, arrangement, classification, and purification of the homœopathic Materia Medica, from which it may be inferred that there is a generally felt want of such a work; and no one, especially no busy practitioner of medicine, can take up any one or all of our various works on Materia Medica, with the view of getting what he needs in the way of well-defined and accurately stated indications for the selection of a remedial agent applicable for a present purpose, without being painfully convinced that, in the profusion and confusion of such works, as exhibited in the symptomatology of individual remedies and in their reputed range of action, there are almost insurmountable difficulties to be overcome before he can, with any degree of accuracy, select a remedy in accordance with the demands of science and the express teachings of homœopathy.

In writing thus and entertaining as we do the desire, shared doubtless by all of the earnest and true workers in our ranks, to do something towards placing the Materia Medica upon the basis of scientific precision, and in the hope that, if not able to contribute a hewn stone for the stately edifice, we may at least point to the quarry from whence it may be taken, we presume it is scarcely necessary to disclaim any wish to cast a single reproach on any author or on any work yet issued. Books have

multiplied having peculiar ends in view, evidently with the purpose of supplying the want which, as we have already intimated, is so generally felt, and each and every author and compiler has no doubt conceived that his book, to some extent at least, met the popular demand. To all such laborers in the field we award a generous recognition of the good effected and the spirit which prompted their hopeful labors, and sincerely trust that no one of the enthusiastic cultivators of this branch of medical science will grow weary in well doing because the good we all seek is seemingly yet so far in the future.

The desirability, therefore, of placing the Materia Medica in a better and more practical form, is a matter upon which there seems to be no difference of opinion, the only variance being as to the manner in which the much-desired work should be accomplished. With many the conviction exists, that the Materia Medica is already too voluminous, the number of remedies proven too large, and the symptoms altogether too numerous for any practical utility, even supposing them to be always of a reliable character. Others think the borders should be constantly extended, that many new remedies should be added to the already long and varied list, and that very special consideration should be given to the later additions to our Materia Medica, and particularly to the plants indigenous to our own country. But, while upon the points already enumerated, as well as many others which agitate the profession, there exists a great diversity of opinions, there seems to be a great unanimity of sentiment as to the necessity of so arranging our material as to make it of the greatest practical value to the practitioner, who in the discharge of his unceasing round of duty can find but little time to consult his Materia Medica as it now exists with facility and with profit. What he wants is to have his resources in the armamentarium with which he is supplied, as legible as the groups of symptoms constituting the morbid manifestations with which he has to deal. In visiting his patients, his quick eye and patient investigation soon give him an insight into the peculiarities of the case before him, which to his mind individualize the case and make it to stand out in bold relief as an entity. Now, to have the Materia Medica always practically available in the

highest degree, corresponding pathogenetic groups should be readily accessible, in order that the *similimum* may be ascertained with the promptness that the necessity of the case demands. In the brief space which we design this paper to occupy, we cannot enter into minute details as to any plan for arranging the Materia Medica so as to embrace the advantages in practice to which we have adverted, but will merely give a few hints as to what seems to us a useful and practical way to effect an improvement upon the general arrangement followed in most of the works on this branch of medical science. The difficulties in the way of a classification of the Materia Medica are very great, as any one who has ever undertaken such a task will testify, and we know of no general classification which is likely to be of much service; but the various remedies will need to be classified and reclassified, with reference to tissues primarily and specially affected, to temperaments, to sex, to conditions, to concomitants, &c. Thus the various agents entering into the composition of our Materia Medica, might be first classified with respect to the tissue of the organism primarily and principally acted upon, as for instance, the medicines affecting prominently the mucous membrane might be brought together in one class, which class might again be subdivided with reference to the particular portions of the membrane for which one or another drug should show an elective affinity. And so on through the tissues of the body. Then classification should be made having regard to the different organs affected, and thus also with the various conditions and concomitants.

As all compound medicinal substances evidently owe their virtues as curative agents to the various elementary substances of which they are composed, and the peculiar manner in which these elements are chemically combined, of course, in so far as such knowledge is attainable, it ought also to be incorporated in a Materia Medica, upon the plan we are endeavoring so very generally and very briefly to set forth. And were such knowledge of the elementary constituency of remedial agents more accessible and rendered more practical, we are of the opinion that the number of remedies might be greatly diminished, and with advantage to the science as well as to the practitioner. Chemistry

is now being applied to the substitution of artificial for the natural alkaloids. If entirely successful, we doubt not that these may be as efficient as remedial agents as those of natural origin; of course, however, they should be submitted to the same test of proving upon the healthy organism, as no agent whatever should ever be admitted into a homœopathic Materia Medica without the most extended and the most careful proving. If such artificial preparations should be found to possess the same virtues as those of natural origin, it would be made apparent that the virtue was due to the elements of which they are composed. If, on the other hand, it should not so turn out, then it would be made manifest that there is a *vital* principle present in the natural alkaloid, and hence the next step would be to endeavor to ascertain what that vital principle is, and whether it may be obtained and employed as a remedial agent in a simpler form than plant or extract furnish it.

This, it seems to us, whether now practicable or not, would be a very decided step taken toward the purification of our Materia Medica. If, however, a purification cannot be effected in the way of making the Materia Medica more scientific and more reliable, let no one fancy that it may be either purified or improved by any arbitrary abridgment of its contents. That is certainly the way in which the work must *not* be done. In the plan we have in view, every real symptom would have its place and its value. Peculiar symptoms, corresponding with the idiosyncrasies of individuals, and seemingly admitting of no anatomical or physiological classification, should be placed in a separate department, for the purposes of reference in very peculiar and very obstinate cases. Prescribing by single symptoms, whatever their importance may be deemed to be, cannot fulfil the requirements of scientific medication; and yet there are cases in which it is exceedingly difficult to make a satisfactory diagnosis, and much more difficult to find an appropriate remedy. In such cases a peculiar symptom, if present, may lead to the similar remedy, and if all such symptoms were separately classified, a reference would be much more easily made. Brilliant cures have been effected by prescribing upon a single symptom; but we are of those who would, if possible, prefer being able to better under-

stand the case, as well as the agency of the medicine employed in accomplishing a cure.

Another way in which the Materia Medica might be improved is to conduct the provings of medicinal substances by the administration of a single dose, or a rapid succession of doses, until a pathogenetic action is produced, and then to allow that action to become entirely exhausted before another dose is administered. In this way we would get a consecutive array of symptoms, the order of which should be carefully noted and preserved; thus we should have in our pathogenesy a state of affairs precisely analogous to what takes place when diseases are contracted. First, there is the period of incubation, and then the periods of successive development. Provings should also be instituted and separately recorded with reference to the sex of the prover and the potency employed in the provings.

In carrying out the plan very briefly sketched in this paper, an arrangement of the homœopathic Materia Medica would be effected embracing substantially the following features, viz., the elementary substances, in so far as they may be obtained for such purpose, should be submitted to physiological provings as such, and all of the pathogenetic effects noted which they singly are capable of producing, care being taken, as already intimated, to preserve the order in which the symptoms occur, the potency employed, the sex of the prover, and all the circumstances attending the provings as viewed with the aid of all the light which the advancement of modern science affords. The *order* should be preserved, for this is indispensable to a presentation of the distinguishing peculiarities of the agent in its action on the organism; the *sex* should be distinguished, that we might be acquainted with the peculiar action of the agents upon the male and the female organisms in all that differentiates the two. The *potency* should be specially noted, because different potencies of the same agent are, as is evinced in their pathogenetic as well as in their therapeutic powers, in reality different medicines.

Of the now recognized elementary substances, sixty-three in number, only about forty have as yet been introduced into pharmacy as agents having any therapeutic value. These, as being simple elementary substances, should be grouped together as such,

with the provings of them as far as have been obtained, or it may be possible to secure. Next, the compounds of the elementary substances with each other should be arranged in separate classes, in accordance with their modes of combination. In this general arrangement, the preponderance of certain elements in the various compounds should be made perfectly apparent by the formulæ being always given.

The vegetable substances also would require, in such an arrangement, to be placed in accordance with their chemical constituencies.

The vegetable substances, which are so largely employed as medicines, are compounds of many elements and compounds of elements, and the chemical constituency of many of them is exceedingly complex; and in view of the very large number of new remedies from the vegetable kingdom claiming admission to the Materia Medica, it would seem to be an economical consideration of great value if the principles they contain, or the elements into which they might be analyzed, should be able to solve the question as to their proper position in the Materia Medica (if admitted at all), rather than that the profession should be compelled to await the slow results of clinical experience and corroboration in order to give them their proper value. The advantages, too, of having a general knowledge beforehand of what may be expected as the results of provings cannot be easily overrated. The active principles of plants (the alkaloids, &c.) may be classified as such in a separate chapter, or placed with the plants from which they are obtained.

We may yet dispense with tinctures of whole plants, which present difficulties in the way of their employment as remedial agents on account of differences in the conditions of the plants used, of strength of preparations, and the objectionable presence of alcohol. All tinctures are, of course, compound remedies, inasmuch as alcohol, itself possessed of marked pathogenetic power, is contained in them, and many of the plants of which tinctures are formed are compounds of many elements and proximate principles. Simplicity, which is always the perfection of science, should be the aim in the production of a "Materia Medica pura."

If some such plan as the one thus briefly sketched, and which should be somewhat extended, were carried out, the Materia Medica might be abridged, improved, and purified without the sacrifice of a single reliable symptom; we might be enabled to give a more satisfactory explanation of the action of our remedies than we are now prepared to offer; and the records of our provings would be rendered far more convenient and profitable for the use of the student, as well as far more available for the practical purposes of the profession.

XXXIX.

PROVINGS OF FAGOPYRUM ESCULENTUM.

By Dexter Hitchcock, M.D., Norwalk, Conn.

Fagopyrum esculentum, or buckwheat, is a plant of the order Polygonaceæ, not indigenous, but introduced from Europe. Name derived from φηγός, the beech, and πυρός, wheat, from the shape of the grain being that of the beechnut.

The English name, buckwheat, is from the German Buche—beech. It is an annual, cultivated from June to September. To this family belongs the Rumex crispus. The plant is so common and so well known that a botanical description is hardly necessary.

It has long been recognized among farmers as having a marked effect upon swine. The dry straw produces a decided irritation. The skin becomes red, and the animal resorts to rubbing and presents marked indications of discomfort. It is a common saying that hogs must never be bedded with buckwheat straw. Pigs have sometimes been allowed to run in the standing grain during fruitage, and in these cases the effect has been more marked.

One case came directly under my notice, in which a litter of seven ran in the buckwheat at will. Soon a bright red eruption appeared, and the pigs showed constant symptoms of irritation. The eruption increased, their ears and tails became covered with thick scabs, slightly moist, and finally these crusts extended to their bodies, which became nearly covered. The crusts increased in thickness, and deep cracks soon appeared behind their ears and along their sides, extending from the back down-

ward, many of them lost their tails entirely, and some died. An exactly parallel case was narrated to me recently by a farmer of Litchfield County, Conn.; he remarked also, that the effect was to stunt the pigs and render them almost worthless. Those who labor in harvesting and threshing buckwheat very often complain of an itching and uneasiness, which seems to be occasioned by a peculiar irritating quality of the dust. From the grain we have buckwheat flour, and hence the so highly appreciated buckwheat cakes. The opinion, however, is very prevalent, that from their use itching and often scabby eruptions result. Very often they are objected to on this ground by those who believe that such would be the consequence were they to indulge in the luxury.

Professor Houghton, M.D., says that he once had an opportunity to observe some school children who were in the habit of eating a kind of bread made of buckwheat flour. In their mouths sores of an aphthous character developed, and over their bodies a bright red eruption appeared in patches; no suppuration, but heat and swelling of the parts. The itching became intense, and the little unfortunates were finally obliged to give up the offending article of food. A friend, of the Yale Theological Seminary, says that at one time during his youth, he carried the grain with him continually, and was very frequently chewing it. He says that as a consequence, any slight scratch became a large unhealthy sore. After giving up the buckwheat, his system returned to its former healthy condition. He also states that the same had been the experience of several of his friends. Mr. C., of New Haven, says that buckwheat bran fed to horses will without fail kill the worms with which they are so often troubled. He has often used it for that purpose and now resorts to nothing else.

Cows fed upon this bran give milk of an inferior quality. They also run down and soon become poor.

PROVINGS.

Attenuations of the tincture prepared from the whole plant in a mature state have been used.

Proving No. 1, by Dr. Hitchcock.—Health good, pulse regular and rarely over 60.

1st day, Jan. 11th, 4 P.M., took gtt. ij of the 16th potency. During the evening, upon the radius of the left arm the papillæ became red, hot, and elevated over a surface 2 by 3 inches. Itching persistent. Also, itching of the scalp has occurred frequently, with a sense of heat. The eyes feel sensitive upon closing them tightly, and there is a roughened feeling upon motion of the lids, especially of the left eye. This has all come on since taking the preparation.

2d day, 10 A.M., gtt. ij. Occasional itching through the day. 6 P.M. Itching of left arm continuous, also quite frequent along the back and lower extremities. Nose sore and excoriated within, slightly swollen. Eyes feel as if roughened, external canthi sore, with constant burning irritation, relieved by moving the lids very slowly. Occasional itching of the scalp, especially of the occipital portion. This itching comes on while sitting still in a warm room.

3d day, 8.30 A.M., gtt. ij. Itching of various parts of the body through the day, especially of the left arm and of the alæ nasi. Eyes feel sore and hot. Headache during P.M., pressing outward, especially in the occiput. Pain in the back of the neck, extending from the occiput; constant feeling of heat. 6 P.M., gtt. ij. At 7 P.M., itching becomes general; itching of alæ nasi, both externally and internally; sore and excoriated internally, also hot and swollen. Septum nasi begins to be similarly affected. Pain in the head relieved about 10 P.M. At 7 P.M., felt oppression of the stomach, as if it had received some hot substance, no real pain; a bruised sensation and uneasiness. It continues through the evening, and at 10 it is almost impossible to remain sitting; a feeling as if something to eat would relieve. After belching wind, this feeling passes off in part, but soon returns. Do not remember of belching wind before; it is an entirely new symptom for me. Lips dry, they crack and peel. 11 P.M., gtt. ij. Itching general after retiring, aggravated by scratching.

4th day. Itching continues through the forenoon; itching of scalp, occipital portion, and of the nose, which has become more swollen and excoriated. Gtt. ij at 12 M. The papillæ upon the left arm have become more red, swollen, and irritable; there are also other smaller patches. At 2 P.M., a thin, pappy and almost

watery stool, with tenesmus. Eyes itch, especially the left eye. Gtt. ij at 6 P.M. Symptoms continue through the evening. At 10, a watery stool with considerable flatulence.

5th day. At 8.30 a pappy stool, rather large. Gtt. iij, 9 A.M. A sharp and sticking pain in the occiput, right side especially. Dizzy feeling, and dull pain all through the head. Stomach feels as if bruised and hurt; oppression of the stomach and gnawing, no hunger, relieved by eructation. Saliva accumulates in the mouth, with gaping and belching of wind. Soreness in region of the submaxillary glands, more especially on the left side; vertigo and confused feeling in the head; a diffuse pain in left leg from knee down; pain in left shoulder, extending down the side, and some sharp stitches in the region of the heart. Eyes—roughened feeling, conjunctiva reddened, more of left eye. Itching of the outer canthi. 9 A.M. Pressure and fulness in the head. Itching over all parts of the body, especially the back, scalp, and eyes; scratching is followed by aggravation. All symptoms relieved by motion. Nose still sore and filled with crusts, which are easily removed, but this is followed by itching and burning. There are several red blotches upon the neck, which are sore and irritable. Severe pain in the head, which extends from the irritated surface of the nose through back of the eyes to the forehead; pain in the occiput and sense of weariness in the back of the neck. Feeling of congestion and as if the eyes were pressed out from behind. At noon, stomach feels distressed; occasional shooting pains in the region of the heart, and sense of heat over the body. Throat is sore and feels as if excoriated; swallowing aggravates. The inner surface of the mouth feels as if dry and parched, and yet more than an ordinary amount of saliva. Gtt. iij at 2 P.M. Pain in the head, bursting outward all the P.M.; bursting pressure, especially in the temples and forehead. Pain through the whole head and occiput, to the back of the neck, relieved by pressure and gentle motion, especially in the cool air. Aching pain deep within the eyeballs, and a pressing outward; also many shooting pains of short duration, both within and around the eyes. Conjunctiva reddened. Itching of the edges of the lids, and burning; things seem obscure and wavy. Ears itch, and sounds seem muffled and wavy, but only for a

few minutes at a time. Surging through the head, which feels hot; pressing out in both temples continues. Throat is sore and aches just back of the isthmus of the fauces; feels as if raw and a bruised aching pain extends downwards; submaxillary glands are enlarged; carotids throb; feeling of intense heat through the body, especially the head, neck, and hands. Hands are covered with perspiration from 3 P.M. until late in the evening. Flatulence; stools pappy, with flatulence. Urine rather increased. Appetite good, and temporary relief of symptoms while eating supper, but soon return. Have not felt so cross and irritable since I can remember. Inner surface of nose continues sore; also septum far back. Touch causes burning and itching. Pain caused by breathing cool air, not sharp, but aching pain; symptoms mostly relieved while walking in the open air, but the stomach feels as if something was moving in it, causing a sore distressed feeling; belching wind relieves; never had a similar feeling before; it continues until retiring; after retiring the itching is aggravated.

6th day. Did not feel as if I could get up, and afterwards felt languid to an excessive degree; shall take no more at present. This morning there is a dull aching through the whole head; eyes red; lids swollen; pain through the back part of each eye, especially the left; itching of the eyes upon motion, and of the margins of the lids; belching of wind and gaping; through the day aching of the head, more in the forehead, and especially back of the eyes, pressing outward; also pressing out in the temples; some sharp stitches deep within the eyeballs; a feeling of heat in the head, and as if the head was too heavy; temporary relief from bending the head back, but soon followed by pulsating and pressure in the head. At 2 P.M. the heat seems to increase, and yet but little redness of the face; carotids throb; hands feel as if hot; all through burn and feel uneasy; fingers get tired while writing, and ache; frequent nausea almost to vomiting, and a sore feeling in the stomach, all relieved by belching wind; pressure in the forehead and back of the eyes aggravated by bending forward, also by mental application; throbbing of the carotids; eyes feel blurred, and objects appear indistinct; pulse 76, full and strong. Between 3 and 5 P.M., symptoms

aggravated; pain in the region of the heart upon stooping to write; pains aggravated by going up-stairs; throbbing of the heart and pressure in the head; sweating of the palms of the hands; acute itching of the margins of the lids; eyes feel dull; not as sore as yesterday, but have dark rings under them. About 5.30 P.M. hands cease sweating; feel cross and irritable all the evening.

7th day. This morning, pulse 72; hands feel hot and dry; not much headache, but some indefinite pains back of the eyes and in the occiput; nose quite sore and burns; some itching of various parts, though not persistent. At 5 P.M., pressure in the head aggravated by mental exertion; difficult to listen, but not so difficult as yesterday; hands have been in a perspiration for two hours, but this now disappears; itching of the lids, arms, &c.; pressing out in the temples and some pain back of the eyes; sense of uneasiness in the region of the heart; pulse 58. 11 P.M. The upper lip has an itching and drawing sensation as if the skin was too tight; the outer canthi itch and smart; nose continues sore and smarts; stomach feels oppressed and as if empty.

8th day. Woke with headache and pain behind the eyes; eyes red and lids somewhat swollen as yesterday; outer canthi itch, as also the margins of the lids; head, pressure outward, with steady pain; nose still sore; coryza a little bloody; pain extending from the inner surface of the nose up behind the eyes upon inhalation. Stool at 8.30 as usual, but a little loose; hands feel hot and dry. At 11 A.M. stool, with severe pain in the rectum extending down the thighs and legs to the heels; continued and severe aching pains in the abdomen; stomach feels uneasy; saliva flows freely; stool abundant; at first pappy and then watery; passed with force and followed by severe tenesmus for ten minutes; bursting pains in the head, and prostration lasting for some time after. Left ear, soreness of, within the auditory canal; sensitive to the touch; have taken none of the preparation since the fifth day; gtt. ij. at 10 P.M.

9th day. Rose with head and eyes as usual; lids have not been agglutinated. Gtt. iv at 2 P.M. During the P.M. and evening, bursting out headache as usual, with inability to apply the mind on account of its increasing the pressure in the head.

10th day. Soon after rising headache came on; eyelids swollen as usual. Gtt. iij at 8 A.M. All symptoms relieved by motion in the open air. Gtt. ij at 2 P.M. Some sweating of the hands and feeling of heat; symptoms nearly the same as before; severe pain in left shoulder and elbow; upon breathing the cold air a bruised pain extends from the sore interior surface of the nose up behind the eyes; in the evening a peculiar feeling of uneasiness in the stomach bordering upon nausea; saliva accumulates in the mouth; skin, papillæ of, feel sore and itch; aggravated by touch and relieved by motion, and in the open air; a peculiar crawling feeling over various parts of the body. Gtt. iij at 8 P.M. Almost immediately there is a bruised, sore feeling in the stomach; go to sleep while sitting up, and finally upon retiring have a headache come on; feel hot, restless, and itch; dream all night, waking frequently.

11th day. Eyes as yesterday, but a little more watery in appearance; other symptoms as before. Gtt. ij at 9 A.M. Forenoon no new symptoms; P.M., itching over the pubic bone marked; itching in general; nose more sore; occasional pains in the region of the heart, rather dull; throat, soreness, and aching just back of the isthmus of fauces; soreness upon swallowing; nose sorer than yesterday; sore, red blotches, which do not fester, but itch and induce scratching, which aggravates. Gtt. iij at 10.30 P.M. After retiring pain in the head came on; I became restless; itching increased; dull pain in the region of the heart; restless through the night, and dreamed, but all dreams terminated pleasantly.

12th day. As usual in the morning. Gtt. iij of 3d at 8 A.M. Same symptoms as before during the A.M. Gtt. iij at 2 P.M. During the P.M. had itching of the eyes more continuous. Sweating profuse 3.30 until 5; very cross and irritable. Mind depressed. Pain from the interior of the nose to the eyes, which feel rough; motion aggravates; conjunctiva reddened; itching over the body increased. Gtt. iij at 9 P.M. After retiring headache increased, and restless as before.

13th day. Rose in the morning feeling as yesterday. Gtt. iij at 8 A.M. At 10, pain in the region of the heart, extending to the left shoulder and arm; pain sharp; other symptoms about the

same. Stool rather soft. Urine has been slightly increased all through. Gtt. iij at 6 P.M. No change of symptoms through the evening. After retiring pressure in the head and some headache; feel very hot and restless, and soon a slight moisture over the body. Pain in region of the heart, dull and continued; wake at 5 A.M. and cannot get to sleep again; dull headache.

14th day. Upon rising nose soon becomes stuffed and full, with a feeling of pressure behind the eyes and through the anterior portion of the head. Gtt. iij at 9. Soon after quite fluent coryza. Nose alternately stuffed and clear through the day; the ulcers in the nose, which have continued for two weeks, are much less sensitive; through the day symptoms about as before. Gtt. iij at 11 P.M. After retiring felt, as usual, restless; dreamed, but dreams all terminated pleasantly.

15th day. Awoke at 5 A.M. and did not get to sleep again; symptoms the same as other mornings. Gtt. iij at 12 M. During P.M. throat sorer and aches, especially the upper part of the pharynx; itching increased; red papillæ upon the face, which seems swollen, and also over the body; carotids throb; other symptoms the same. Gtt. iij at 11 P.M. Headache, itching, and heat all increased after retiring, though severe before. No pain in region of heart as on other nights. Dreamed.

16th day. Awoke at 5, but slept again; rose at 7 with a severe headache. Eyes as before. Tongue very red, as it has been all the time. Pulse 82. Gtt. iij at 9.30. At 12, stomach feels oppressed and as if empty, yet no desire for food. Saliva in the mouth, incipient nausea. Some bruised pain in the stomach. P.M. All symptoms aggravated from 3 to 4; heat increased, followed by slight perspiration. Gtt. iij at 11 P.M. Not so much headache upon retiring; other symptoms not so much aggravated as last night.

17th day. Lids swollen and itch, but never agglutinated. Crusts in the nose, which is still somewhat sore. Gtt. iij of 10th at 8 A.M. An aggravation between 10 and 11. Hands moist. At 12 stomach oppressed and aches. No special desire for dinner, but like to eat after once beginning. This has been so generally since taking the Fag. esc. Gtt. iij. at 2 P.M. Nose feels dry and is much sorer. Have a swollen sore spot in

roof of the mouth. At 4 P.M. heat increased, and soon a perspiration over the body, but especially of the hands, which feel uneasy all through. Nose is very sore, and pain extends from it to the head. Nausea and weariness. Head feels heavy. Dull pains in the region of the heart, which cause general depression of spirits; irritable. Itching intense. Perspiration and heat continue, but all these symptoms are relieved by eating supper. At 7.30 symptoms return, and pressure in the head is aggravated. Carotids throb. Fauces feel scraped and sore; aggravated by swallowing. Lids feel much swollen; objects blurred as if a thin secretion over the eyes obstructed the light; still the eyes feel dry and are red; have a kind of glassy look. Limbs feel numb upon remaining in one position for a few minutes; this symptom has occurred several times before. Dull pain extending from the left ear to the throat upon swallowing. 10 P.M. Great soreness and aching of the throat, which gets dry, and upon swallowing feels as if raw. Tongue bright red, also isthmus of fauces and soft palate. Can hardly touch the nose; the whole interior surface is dry and hot, and feels as if raw. Gtt. iij at 11 P.M. Restless after retiring; itching increased; dreamed continually.

18th day. Eyes red and swollen, but not agglutinated in the least. Headache, &c., as usual. Nose and throat do not feel as sore as last night. Tongue, thin white coating. Took none this morning. 9 A.M. Nose and throat begin to get sorer; whole inner surface of nose far back feels dry and as if parched; itches and burns; occasionally a watery flow, which dries up immediately. Symptoms through the day not as marked as yesterday. Gtt. iij at 2 P.M. Towards evening the left malar bone become sore, and also the temporal region. This causes pain and pressure in left eye upon closing the jaws firmly, as during mastication. Itching in both eyes. Did not have the heat increased during the P.M. as yesterday.

19th day. Nose as usual. Gtt. iij. During A.M., symptoms as other days. Gtt. ij at 2 P.M. 4 P.M. Aggravation comes on again. Heat with moist hands. Back of neck and face burn. Pressing out in the head. Carotids throb. Pulse 93. Perspiration of hands. Have had no sense of chill. Tongue scarlet,

so fauces. Face, head, and neck burn. Legs and feet cool but itch, itching general. Hands, although moist and cool to another, burn all through. Abdomen very much distended, but no rumbling of wind. Carotids throb violently, and even a light pressure over them causes a bursting pressure in the head. Neck feels tired and head heavy. Pressure increased by going upstairs. Nose about as yesterday. At 6 P.M., itching severe, especially of back and over pubic bone. Pulse 80. 9 P.M. Pulse 66. Pain in eyes, sharp and continued, extending to the right ear; lids swollen. Am unable to study. Get to sleep sitting in my chair. After retiring become restless; dream; am in trouble all night; wake.

20th day. At 5, mind active and can't sleep again. Bed feels hard. Dull headache. Rise at 7 and feel better for a few minutes, but the headache continues. Soon a dull pain around the heart. Pulse 90; feels weak, and a little irregular. Throbbing of the carotids plainly seen by one observing. Hands and feet alternately hot and cold. 7.40. Hands cold. Pulse 72. At 8 hands hot, and pulse 97; jerking pulse. Pains all through the body; feel as if I had been sick a long time. Aching pains through the abdomen, which come on after a large pappy stool. 9 A.M. Right hand cold and pain through the arm; left hand warm. Pulse 76, small and jerking. Stomach feels unsettled. Eyelids sore and itch. Head feels wavy; dull pain from back of the eyes through the head and occiput. Pulse 67. At 10.30 left hand cold and right hand *burning*. Gtt. iij at 12 M. At 1.20 pulse 81. At 5 P.M., pulse 66. Feel very badly. Throat very sore, not far back, but isthmus of fauces feels as if raw; constant aching pain aggravated by swallowing; this pain seems to diffuse itself through the head, especially affecting the ears. Tongue very red. Pain in the occiput and pressure through the head. Neck feels tired and as if hardly able to support the head. Have nausea and am hardly able to sit. Hands hot, but not much moisture. Had not had as close mental application as usual to-day. Mouth tastes badly. Pressure in the head and back of the eyes severe. Pulse at 6 P.M. 60. Gtt. iij after eating. 7.20. Pulse 73. At 8, sharp pain extending from the right ear down the Eustachian tube to the submaxillary gland.

This continued for several minutes. Pulse, 11 P.M., sitting, 73; standing, 84; the slight pressure from taking the pulse causes pain to extend up the arm and through the hand; this has been so repeatedly. Urine rather increased in amount, chlorides abundant, slightly acid. Red blotches all very sore, itch and burn, but none of them suppurate. Feet cold and head and neck hot. Gtt. iij at 12. Pulse 68; both hands soon warm and feet also. 12.30. Some nausea; dull pains through the body. 1 P.M. Pulse 83. During P.M. all symptoms aggravated by mental work, but not the aggravation of yesterday. 5 P.M. Pulse 70; eructations, but the abdomen not as distended as yesterday. Feel better than yesterday. At 6.30 P.M., pulse 80. 11 P.M. Pulse 72. Gtt. iij. Throat very sore, especially the soft palate and the pillars of the fauces. This soreness does not extend back into the pharynx; there is an irritation which provokes swallowing, but this occasions a sore scraping sensation and a kind of dull pain.. Feel hot all through; after retiring feel hot and restless; itch; dream through the night.

21st day. Awoke about 5, but have some broken restless sleep after. Do not feel as badly as yesterday morning and still have a dull headache. Eyes swollen, &c. At 7.45, pulse 84; tongue, thin white coating of. Dryness and heat of the hands. At 9.15, pulse 72; soft dark stool; after it pulse 80, and pressure in the head somewhat increased. During A.M., walk in open air and feel better. Gtt. iij, 11 P.M. After retiring, heat and itching aggravated somewhat, though not as much as usual. In trouble all night; dreamed constantly.

22d day. Thin white coating on the tongue; bad taste in the mouth. 9 A.M. Pulse varies from 74 to 80. Gtt. iij at 12. Pulse 60. Dull headache most of the day, and at times severe, but have felt better than yesterday afternoon. 10 P.M. Pulse 58. Gtt. iij. Upon sitting by a warm fire the itching is increased. Isthmus of fauces very sore. During the night dreamed as usual.

23d day. Awoke at 5; mind active and slept but little more. Rose at 7; pulse 78. Nose and throat sore, and dull pain through the head but not severe. At 8 A.M., pulse 66. At 8.30, pulse from 80 to 90. At 10, cold all over, especially my

hands and feet. At 11, pulse 60. At 11.30, sharp pain in the region of the heart seeming to go directly through it. 1 P.M. Neck tired, headache, mind clouded. These symptoms are relieved by eating. 2 P.M. Pulse, sitting, 74; standing, 90. Can look in the glass and count the pulse by observing the throbbing of the carotids. Tongue bright red; moist and fissured deeply along its edges. Itching of the right auditory canal. Gtt. iij at 2 P.M. At 3 P.M., pulse 74. At 3.50 feel the heart beat; pulse 99; an occasional double beat, and a feeling of oppression about the heart. Pressure and heat in the head, and especially heat in the back of the neck. Feet numb and pricking pain through them, more especially the toes. Upon crossing the legs feel the popliteal artery beat, so that it becomes necessary for me to change my position; feet go to sleep. At 4.30, pulse 87. Heat and sweating of the hands; a feeling of heat through the body. At 5.20, pulse 89. Feel as if I must take a long deep inspiration, and yet this does not satisfy; have to loosen my clothes; soreness up through the left side upon inspiration. A slight pressure upon any bloodvessel occasions pain, even bending the arm to write or taking the pulse. Heat in the head and back of the neck, which feel tired. Pressure in the head. Pulse 72 at 6 P.M. After supper 6.30, pulse 82. Slight moisture of the hands, which feel hot. Can breathe with more satisfaction, and yet upon deep inspiration a sore pain in the left side; occasionally also in the right side. 8 P.M. Just came in from a walk; did not walk fast. Pulse, standing, 108; sitting, 88. 11 P.M. Pulse, standing, 74; sitting, 67. Gtt. iij. Wakeful after retiring, and some sharp pains through the abdomen. After getting to sleep dreamed until wakening.

24th day. Awoke at 5; slept again, but no sound sleep. Upon rising feel pretty well at first, but soon a dull headache comes on. 7.30. Pulse, sitting, 84; standing, 102. Feel pains through my hands and arms, which seem to be in the arteries; these pains are of a peculiar stinging character; have felt them often before, especially when noting the pulse. The pulse changes constantly in quality; at times full and round, and soon after can hardly be felt; a clinging pulse; the beats seem to hold on. Stool at 8 A.M., large, dark, and soft, easily expelled;

soon after a dull pain through the abdomen, and a dull aching sensation through the body. Carotids do not throb violently this morning, and yet can see very distinctly the pulsating of the arteries on the back of my right hand, and some of the time can feel the throbbing so distinctly that I can count the pulse without looking or applying the fingers. Aching pain through the whole abdomen and thorax, but especially in the region of the diaphragm, and up through the left side; have to loosen my clothes; have a sense of suffocation not at all relieved by inspiration. Lungs seem perfectly clear. Pressure in the head and dull pain in the occiput. Tenderness over the stomach. Tongue red; nose and throat not as sore. Symptoms grow worse immediately upon attempting to study, and render it impossible to do so. 8.30. Walked slowly to the college and back to my room; am in a perspiration and heat, also feel exhausted; suffocative feeling, which seems to refer itself to my heart. Pulse, as taken by Dr. Wilson, 138; after sitting for half an hour, pulse 80; when another is taking my pulse, can feel the throbbing under my fingers and count the beats myself; pulse 67 at 9.45. Between 10 and 11 hands hot and sweaty. Feet cold and damp. Can't sit still, as it starts stinging pains along the course of such arteries as are compressed; abdomen distended; tympanitic over the cæcum and ascending colon; elsewhere dull. Aching pain deep in, and as if it might originate in the arteries; it extends to the region of the heart, and is aggravated by stooping. 11.30 A.M. Pulse 65. Pain through my hands and arms. Abdomen distended, and have to loosen my clothes, as pressure increases the pain and uneasiness through the body; also the suffocative feeling, which I believe starts from the heart. Tenderness over the stomach. Saliva in the mouth. Incipient nausea. During the P.M. restless, hot, and can't sit easy; dull pain all through the body, but more especially up through the left side; pain from behind the stomach to the heart and shoulder, aggravated by stooping or compressing the abdomen; stomach oppressed, and an empty feeling. 9 P.M. Pulse, sitting, 97; standing, 116; very small, hardly perceptible. Writing this causes pain along the arteries of the right arm, from the elbow to the hand. Cutting pain in my stomach after eating an apple. 9.30 P.M.

Pulse from 64 to 80, during three consecutive minutes, and yet have not moved from my chair during the time. Throat sorer; also nose, which this P.M. seemed nearly well; cannot sit still on account of the dull pain and peculiar uneasy feeling it occasions. Heat through the body, and especially through the hands, which at times are moist, and soon after dry; usually moist from 11 to 1, and from 4 to 6. Feet hot. Itching. Pass night as usual.

25th day. Wake between 5 and 6. At 7.30 A.M., pulse from 63 to 72. Feel much better than yesterday. During forenoon nausea and heat. Stool at 6 A.M., with tenesmus. Some thirst. During A.M. two stools more; all thin, and the last watery, with great tenesmus. Have vesicles on the lips and in the mouth, and yet have no indications of a cold. 11 P.M. Pulse 66. Have had during the evening the restless uneasy feeling of last night, with dull pain, aggravated by sitting still. Can't fix my mind on anything, or remember what I read even for a few minutes. Have taken none of the preparation for two days, and shall take no more at present.

26th day. Have felt badly all day. Pain in the head and itching; from 4 to 6 P.M., pain all through the body; a bruised aching pain from left testicle up through the left side. Itching in the hands which seems deep in; heat great, and great aggravation of the itching by scratching or pinching the parts. I believe this stinging itching feeling is in the coats of the arteries. This is a very persistent symptom. The distension of the abdomen has disappeared. Before proving this I had been troubled with an offensive perspiration of the genital organs; this is now very slight, and not at all offensive.

27th day. Slept better last night, but about 6 A.M. had a severe aching pain in the abdomen, which forced me to rise and go to stool; stool dark and pappy, forcibly expelled, preceded and followed by tenesmus; yesterday only one small stool. Pulse still variable. Nose becoming sorer, and burning of the lips. Have for several days been entirely unable to listen to lectures. During A.M. pain of a dull character through various parts of the body upon sitting still. Restlessness of mind and body. Dull aching pain through the stomach and abdomen,

which becomes severe as the stomach becomes empty; it is relieved by eating, but soon followed by a bruised pain, at times severe. Face pale, at times flushed; dark under the eyes. 10 P.M. This aching pain has lasted all the evening, and is greatly aggravated by sitting still; relieved by motion. Tenderness over the whole abdomen upon hard pressure, which occasions great uneasiness around the heart. After retiring, itching and excessive burning of the limbs; never before felt such depression of spirits.

28th day. This morning a natural stool. Soon after getting up have the same uneasiness as yesterday. Pain in my hands extending the whole length of the fingers, on both sides of the fingers following the course of the arteries; can't keep my hands still, and yet the slightest motion is followed by great aggravation of the pain, a stinging burning pain; throbbing of the arteries upon the back of my right hand. Upon flexing the arm, pain extends from the shoulder to the hand. Pulse, sitting, 80; standing, 102. Itching continues, and is at times severe. Headache comes on soon after rising. Eyes red, sting, and itch. Am uneasy in mind and body; seem to grow worse rather than better. 3 P.M. Have felt very badly all day; aching pain through the abdomen; I believe the whole digestive tract is affected. Eructations. Oppression about the heart; perspiration of the hands; hot flashes and a slight moisture over the body; as this moisture comes on, heat continues for some time. Pulse varies but tends to go down; sometimes it seems to draw out into a tail, which holds on almost to the next beat; upon rising it constantly accelerates until it loses a beat. Touching the neck just under the lobe of the right ear occasions a cough, with a smarting sensation extending to the ear and throat; headache; eyes smart and sting, itching, &c., as before, during the evening.

29th day. Am feeling pretty clear-headed this morning though restless. Natural stool at 8 A.M. Slept during P.M. After retiring at night great burning of the limbs which seems deep in; feet especially burn; heel hot; this burning causes intense restlessness; can't keep my limbs still. Since taking the Fag. esc., have had rheumatic pain in my shoulders, towards morning, in-

creased by getting cold; when severe, moving relieves the pain. One year ago had similar trouble, which Rhus relieved; have not noted this before, as I had it last year.

30th day. Upon rising this morning feel better. Head feels clear; my nose is very sore again; it never gets quite well; the whole internal surface far back is sore and covered with dry crusts. At 3 P.M., dull aching pain around the heart, relieved by slight pressure. Pulse variable, 80 and over. At 4.30, bursting headache; hands moist. Between 5 and 6, aching through the body, and yet can apply the mind better than last week. Have occasional pain along the arteries; this starts up upon putting my hands into cold water, or upon bringing them into contact with anything cold; pain both sides of the fingers as before. 6 P.M. Sit down in a warm room, and general itching starts up. At 8 P.M., pulse 87. Have occasional pains around the heart, causing great depression of spirits. At 8.10, the pains around the heart become quite sharp, and are increased by inspiration. Head hot, and neck tired; dull pain all through the head; nose becoming very sore, swollen, and hot, with a burning sensation. Have now only occasional distension of the abdomen, and very little of the former feeling of suffocation. Pulse begins strong and becomes weaker and weaker until it can hardly be felt. At 8.45, hands perspire. Pains in the heart gone. Headache gone. Pulse 88. Some pain back of the eyes. Have a considerable itching over the body and limbs. Hands dry at 9.18 P.M. Pulse at 11 P.M., standing, 97, small, variable, and at times hardly perceptible; sitting, 72, round and full; upon retiring, have the same burning, itching, and terrible restlessness come on; this affects the lower extremities most. Slept very well.

31st day. Awoke at 5, with severe rheumatic pain in my shoulders, which passed off after rising. Head pretty clear; no new symptoms. At 8.30, walk slowly to the college, and upon rising have palpitation of the heart. Pulse 123. Walk slowly back to my room. Pulse 140, beats seem to run into each other. Throbbing all through my head, which now has a sharp aching pain all through, extending to the eyes, and through them; stooping aggravates. At 9 A.M., oppression around the heart,

and sharp aching pain. At 9.15 A.M., pulse 102 standing, 87 sitting. Confusion of the head, sweating of the hands. At 10 A.M., walked slowly to the college. Dr. Norton took my pulse, which was 144. Head confused, and some of the old feeling of suffocation. At 10.30, pulse 98 sitting, but the pressure in the head increased. Drawing pains in my shoulders; pain down the left arm and around the heart. Feet cold, hands hot, and both covered with perspiration. At 10.40, aching pain through the abdomen with severe tenesmus; pain from left shoulder down the arm has continued. Feel nauseated and sick all through; pain from the raw dry surface of the nose up through back of the eyes; nose hot and swollen, and filled with dry crusts. 11 A.M. For the last fifteen minutes have had severe aching pains through the abdomen with tenesmus; they come in paroxysms with nausea; also hot flashes with moisture over the body. No desire for stool. Can't listen to lectures, and walk to my room; pains in general disappear while walking, but upon arriving at my room pulse runs together and can count it only with difficulty; occasionally a few full distinct beats. Sit down, and tenesmus with other pains return at once. Feet ache with cold, but are damp. At 11.30, have soft pappy stool with flatulence, very little tenesmus during stool, but after it becomes quite severe; had my usual stool this morning at 8. Pulse 82, and scarcely perceptible; at 12.30 pulse, sitting, 84; standing, 92. Pains are relieved, but can't bear any pressure upon the abdomen; have to loosen my clothes. Eat dinner but have no desire for it. At 2 P.M., tenesmus again. 3 P.M. Stool like the last, only smaller and thinner. Pulse 96 sitting, 104 standing. Corner of mouth, right side, is sore, dry, hot, and deeply cracked. From 5 to 6 P.M. heat increases. Hands burn and soon become moist. Many aching pains through the head and body. Pulse, standing, 103. Pains relieved at 6, but come on again after eating. Abdomen distended and tympanitic over right side. 11 P.M. Have been walking in open air this evening and feel better. Hands now perfectly dry. Pulse 66. After retiring have considerable burning, but not so much as last night. Slept well.

32d day. Awoke between 5 and 6; no more sleep. Aching pain

in shoulders which goes off after rising. Pulse 72. Head clear and no pain. Normal stool at 8. Dull headache comes on at 8.20. Pulse 87 sitting, standing 94. Eyes get red and smart. Pain in region of the liver at 10, and a bruised sore feeling. Pulse variable; after a short walk, 120. Pain in region of liver upon stooping. At 4 P.M., headache increased, neck feels very tired, and constant heavy aching pain from occiput down the neck, and dull pressing-out pain in the head. At 4.40, pain from the left submaxillary gland, which is sore, to the ear; sharp pain just below the left clavicle; aching pains deep in the limbs, more in right arm, extending to the hand; itching pains along the palmar arch upon writing, and down the fingers. At 11 P.M., pulse 67 to 74. Feel sore and bruised all through the body; have been stooping, which increases it. Heat after retiring.

33d day. Rheumatic pains awaking me at 6, then go off after rising. Head clear. At 10 A.M., pains of a dull character through the body and around the heart. Hands and feet become cold. At 10.30, palpitation of heart, with oppression. Rheumatic pains in shoulders upon sitting still. Head tired and confused. Nose sorer. Eyes sore and smart. 11 A.M. Hands get hot and sweat. Feet still cold but moist. Sharp pain in the right ear; dull aching all through the chest. At 3 P.M., headache and sweating of hands. Eyes much sorer, and closing them hurts, more under lid of left eye. Pain from the left testicle to abdomen. At 8 P.M., gnawing pains around the heart, with quite severe stitches. Hands continue to sweat; slight general perspiration. Pain around the heart relieved upon belching wind. 11 P.M. Have felt no more of that pain. Eyes sorer; dull aching all through the body. More eruption on the back, and itching very persistent and severe. Nose sorer, the soreness extending outside. Swelling the size of a pea over the trachea, which is very sore and hard; has continued for several days. During the proving I had drooping of the right eyelid, which I hardly thought came from this, but it has now disappeared. 11 P.M. Pulse 72. After retiring head feels as if it would split. When lying on the right side, quite severe pain in region of liver, and soreness; pain around heart, was obliged to lie upon my back.

34th day. Woke between 5 and 6 with pain in my shoulders, and did not sleep again. Pulse ran very fast for 10 or 20 beats and then suddenly changed, and gave 2 or 3 full long beats. Upon rising pains go off; feel very tired, and have headache, fever, and sweating of hands, aggravated from 10.30 until nearly 1, then less severe. During P.M. tired aching pain through the body upon sitting, as if caused by its weight; unsettled state of the stomach. Towards 6 P.M., the bruised feeling extends up through the chest; this bruised pain is increased by deep inspiration. Abdomen distended and tympanitic; pain relieved by moving, and I believe would be by lying. Meibomian glands of left lower eyelid inflamed; lids of both eyes very red and sore. Pain from right ear to throat; pain through the right arm especially. Abdomen tender upon pressure. Whole head feels confused. 9 P.M. Pain around the heart, also from right testicle up through the abdomen. Itching gets more severe. The skin of the arms and legs has a peculiar red appearance, and as if it would all break out in an eruption. Septum nasi deeply cracked and has a peculiar gnawing sensation. Heat came on after retiring.

35th day. Rheumatic pains as usual, also other symptoms. Walk to the upper lecture-room in the college and am fully exhausted. Pulsating in head severe, and nearly the whole scalp feels as if raised by the throbbing. Pulse 153, but soon goes down to 120; in one hour 103. Many symptoms seem to be growing worse, especially the itching and the bruised pain through the body upon sitting. Now dream but little if any. Eyes feel better. The cracks in the septum nasi are getting deeper.

36th day. Hands very hot at 8 A.M., and in a perspiration at 10. Pulse 103, and irregular as usual. Gnawing and sometimes stinging pains around the heart, extending to the elbow; gnawing, stinging pains from the ends of the fingers extending up the arms, more the left; great heat and burning in the fingers and hands, can't keep them still. Cold table causes pain in my hand and arm as I write. A feeling of soreness in the region of the heart. Not so much pain in head as usual, but nose burns, and there is a stinging gnawing pain; can hardly keep my hands

from it. At 11 A.M., heat increases, hands dry but soon get moist. Nose sorer. At 12, not as much heat. During the P.M. a great deal of pain around the heart; great burning in the hands, with stinging pain from ends of fingers upward; ends of fingers very hot and red.

37th day. Rheumatic pains in the shoulders early in the morning, these disappear upon rising. Pulse rises greatly on walking. Have to press hand over the heart as it relieves the oppression and pain. Pulse runs up over 150 upon walking slowly up-stairs. Feel completely exhausted. Pressure in head but less headache. Have more pain around the heart, and more itching. Stomach feels better. Very restless after retiring and through the night.

38th day. Dull aching pains in the shoulders about 4 A.M., which go off upon rising; slight epistaxis soon after rising. Pulse irregular and high. Much pain around the heart, and through both sides of the chest. 11 A.M. Stooping to write causes constant severe pain through the chest and in the region of the liver; can hardly sit still; at noon have to walk constantly; various pains of same character during the P.M. Heat comes on after retiring. Pain in either side after lying a short time; restless all night; no sleep after 4 A.M.

39th day. Pain in shoulders as usual. Slight epistaxis as I rise. About the same through the day, except more headache. Have been thinking closely. Very thirsty in the evening; drank two goblets of water in about five minutes. Had severe cutting pain through the abdomen, and was obliged to sit down. This lasted about ten minutes. Burning and itching after retiring. Slept but little through the night.

40th day. About 4 A.M., great soreness in region of right tonsil. Succeeded in throwing off a hard, offensive, cheesy mass, about the size of a pea. At 8, soreness much diminished. During morning eyes itch and look watery. Itching of the auditory canals. Some old swellings, which had nearly gone, seem to have a very little pus in them. Pressure in head; occasional sharp pains through the head; more through the right eye and temple. P.M. Itching from right ear along the Eustachian tube. After retiring great burning and restlessness. My chum com-

plains of the heat; even if my limbs are cold, before retiring they get very hot, and burn soon after; this has been so every night for some time. Can't get to sleep for some time, and wake often through the night. Pain around the heart more frequent. Pain in my shoulders every morning greatly aggravated by getting the least chilly.

41st day. Immediately upon rising this morning frequent and severe shooting pain seemed to pass directly through my heart, and my pulse at once became very irregular. Many pains around the heart during the A.M. At 10, feel very hot. Hands sweat, as they do every day, at varying intervals; they are always dry upon rising; feet cold but perspire; they are now usually cold through the day. Whole inner surface of my nose burns with a gnawing and stinging, especially the septum nasi. Feel better at noon. At 3 P.M., pulse 120. Confusion of head. Throat yet a little sore. Now have a swelling in the roof of my mouth from the edge of the palate-bone forward. A diffuse swelling, not very sore, but feeling unpleasantly. After retiring soon get hot, especially my limbs from the knees down; can't sleep for a long time; awake often.

42d day. Awoke between 3 and 4. Pain in shoulders. Restless in mind and body; slept no more. Have a watery coryza, which soon passes off. Rise at 6. Pulse 68; at 9, after walking a short distance, 120. At 2 P.M., pain around the heart. Have been quiet in my room for three hours. Pulse 110. Head feels wavy. Whole internal surface of nose feels dry, and as if contracted; gnawing as before. 3 P.M. Pressure upon the abdomen, from suddenly sitting down, causes severe pain around the heart. Feel better through the evening. Retire late; am very cold, but soon get hot. Burn and itch. Slept none during the night.

43d day. Rose at 5, but soon went to bed again. Oppression of stomach very great. Rose at 5.40 and walked for an hour and a half. Pulse 72. Before rising had a fluent coryza, which passed off about 7.30, and my nose feels dry again. Headache and pain in my eyes come on; this is severe; slightly relieved by cold application. After breakfast feel much better. Coffee relieves. During A.M. pulse about 100. Occasional pains around

the heart. Am restless; have to walk around my room. Hands sweat and nose becomes sorer. Swelling in the roof of my mouth still present. P.M. Sleep from 2 to 4 and wake with a stinging pain through my heart; pains principally under the third and fourth ribs. Oppression around the heart. Am obliged to rise, when headache comes on again. The whole inner surface of my nose, as far back as can be seen, is ulcerated; occasionally a white mucous discharge, but soon dry again. Constant gnawing and heat. From it a bad feeling extends through the head. Belching wind always relieves temporarily the pain around the heart. Lips are dry, cracked, and sore. Head hot. Hands cold, yet perspire. Some burning after retiring.

44th day. Awoke about 4. Pain in shoulders. Am very restless. Sleep from 6 until after 7. During A.M. feel rather better. P.M. Scarlet redness of neck below the mastoid process. Also an uneven redness of the face. Nose not as sore inside, but becoming so outside; nose usually less sensitive in the morning, but becomes sorer in the middle of the forenoon, and still sorer during P.M. Before making this proving I could sleep at any time. Always went to sleep immediately after retiring, and slept late in morning if I allowed it. If I had headache it was relieved upon retiring.

45th day. Feel rather better through the day, but have some pain around the heart, which comes on after sitting awhile. Nose is red and sorer outside; not so sore inside. Hot and restless after retiring, but less so than usual. Awoke about 5 A.M. better.

46th day. Get to sleep again. Soon after rising have pain around the heart. At 9 A.M., pulse 120, and yet have been quiet in my room. Occasional sharp pain in the region of the liver. At 1 P.M., constant, dull, aching pains through both sides of my chest, but especially around the heart. Pulse 90. Hands ache with cold. Through A.M. occasional thick, white coryza. Nose now very dry, and mucous membrane feels as if contracted. After retiring get hot and restless. Dream that everything goes wrong.

47th day. Awoke early with pain in shoulders and around the heart. During A.M. pain around the heart frequent. Great rise

in the pulse, and a feeling of great exhaustion upon going upstairs. Feel very restless during the evening, and go out to walk. Retire at 11. Soon get hot, itch, and become more restless. Have great throbbing of the heart and all the arteries come on, even those of my lips; soon become covered with perspiration. Throbbing becomes intense; can hear it. Am finally obliged to get up and sit in a chair until 3 A.M. Pulse 120. While sitting the pain and throbbing diminish. Retire at 3, and sleep until nearly 6. Pain in shoulders as usual, also around the heart.

48th day. Head confused. Back of neck tired. Dull headache. Pain around the heart through the day. Nose still sore. Arteries throb during evening. Heat, &c., after retiring, but sleep pretty well.

49th day. Awoke between 5 and 6. Pain around the heart while walking. Have a dull headache, and pain extending down the back of my neck, which feels very tired. Get hot upon retiring, but after getting to sleep rest well. Wake in the morning with pain in my shoulders, but not severe.

50th day. Have pain around the heart come on soon after rising; this continues at intervals through the day. Comes on while sitting still, or while walking rapidly. Pulse rises high, and is variable. At times feel hot, and again feel cold; have done so all along. Hands and feet perspire. Occasional pains from the submaxillary glands down the neck. The glands are sore. During the evening feel uneasy; get into a perspiration. Lips and mouth dry. Am cold upon retiring, but soon get hot, especially my limbs, which burn and itch; they have a feeling of restlessness all through. Sleep well.

51st day. Awoke about 6 with pain in my shoulders. Soon have severe pain, which seems to pass through the heart. Headache with pressure. Dull pains through the arms, also through both sides of the chest, with an occasional sharp stitch. Hands cold in the morning, but become hot and perspire about the middle of the A.M. Pulse 102. Feel uneasy and can't sit still. Dull pains start up through the body, and especially around the heart. During P.M., constant sense of weariness. At 4 P.M., hands very hot, and finally perspire. Dull headache and pains

through the chest. Pulse 86 standing, 70 sitting. During the evening pain in my hands, deep in, as if in the bones, forcing me to move them often. After retiring limbs very hot and more restless.

52d day. Occasional pain around the heart during the A.M. When walking slowly up-stairs become greatly exhausted, and my pulse rises to 123. During P.M. nose sorer. Hands moist, and soon dry. Feel hot most of the time. Submaxillary glands sore, more on left side. Itching of the limbs. 7 P.M. Pulse 98. At 8 P.M., while walking, pain around the heart as usual. Itching of knees and elbows upon sitting. Nose sorer; more on right side. After retiring hot and restless, but less so than usual.

53d day. Awoke with some pain in the shoulders, but not severe during A.M. Pulse variable. Frequent sharp pain down the left anterior portion of the neck, with a feeling of soreness. Left submaxillary gland sore. Nose grows sorer. Pains through both sides of chest when writing. Itching around the larger joints. After retiring heat and restlessness for a short time. Sleep better in the morning, and have only slight pain in my shoulders.

54th day. 1 A.M. Pulse from 66 to 80 during three consecutive minutes. At 1 P.M., pulse 98. Nose better. Left submaxillary gland slightly sore. Aching pains around the heart. Some heat after retiring, but sleep well.

55th day. Slight pain in shoulders before rising. 10 A.M. Nose getting sorer again. 12. Itching of knees and elbows quite persistent. P.M. Pain around the heart, and heat of head greatly aggravated by riding on the cars. Become very restless.

56th day. Feel worse this morning, I think from riding on the cars yesterday. Pulse 120. Feel better through the day. Nose not as sore, but pains around the heart come on while walking, also while sitting, relieved by gentle motion.

57th day. Feel better, nose almost well. Pulse through the day from 72 to 110. In evening an aggravation from riding on the cars.

58th day. Can sleep better in the morning, and have but little trouble about going to sleep. Nose is becoming sorer again. Have some itching around the elbows; papillæ raised.

61st day. Now have but slight heat after retiring. Pulse still variable and often over 100 during the A.M. Pains around the heart upon walking far or sitting long. Occasional itching of the elbows and knees. Nose now well for the first time for nearly two months.

63d day. Nose sore again. Heart's action irregular.

68th day. Nose is well again. Pulse still irregular, and some pain around the heart. No heat; after retiring can sleep late in the morning.

75th day. Nose has not been sore again. No symptoms remaining except an irregularity of pulse (now 80), and occasional pain around the heart.

E. E. CASE, æt. 25, light hair and light complexion, in good health, made the following proving of the 1st potency.

1st day. Dec. 22d, took gtt. ij at 12 M. At 1 P.M., slight headache, pressing outward in the fronto-parietal region, lasted about an hour.

2d day. Gtt. ij at 2 P.M. At 3 P.M., headache came on much as upon yesterday, gone at 4 P.M.

3d day. Gtt. ij at 12 M. At 1.30 P.M., itching creeping sensation of the scalp, momentarily relieved by scratching, but followed by aggravation; lasted nearly two hours.

4th day. Gtt. ij at 2 P.M. Thanksgiving dinner soon after and no symptoms observed.

5th day. Gtt. ij at 10 A.M. At 1.30 P.M., stitches in the right breast on inspiration. Numbness in the right shoulder and arm. At 2 P.M., darting pain in the right temple; dull pain in the right knee; numbness throughout the right arm and leg. Itching about the right nipple.

6th day. Gtt. ij at 10 A.M., also at 2 P.M. At 3 P.M., tearing pain in the left axilla, extending into the muscles of the breast and arm. Fulness of the front and upper part of the head. Feeling as if the eyes were pushed out, and at the same time held back by cords. Slight vertigo with nausea. Itching of the scalp and especially about the mastoid processes.

7th day. Pressing headache, especially back of the eyes.

Proving No. 2.—In this proving the 16th potency has been used.

1st day. Jan. 11th, 10 P.M., gtt. ij.

2d day. Gtt. ij at 10 A.M. At 12, itching of the scalp, especially back of the ears. 7.30. Shooting pain in the region of right ear, going back to the occiput; pain in the temples and back of the eyes, right side worse than the left. Gtt. ij at 10.30 P.M.

3d day. Awoke in the morning very tired, and have a feeling of great lassitude, yet the mind is clear. Gtt. ij at 9 A.M. Gtt. iij at 3 P.M. At 4 P.M., lassitude and sleepiness, could hardly keep awake. Itching of the scalp and of the face at the roots of the whiskers. 5.30 P.M. Aching in the forehead, about the eyes and back of them. Itching of the scalp and face continues, also itching of the back of the neck and along the back. 10 P.M. Itching of the scalp and face continues, also the headache. Face feels hot and dry, and as if it would peel all over. Fulness of the abdomen relieved by belching gas. Eyes hot and inflamed, margins of lids sore. Gtt. ij 11 P.M.

4th day. Slept soundly, but arose with extreme lassitude. Itching upon the scalp and face; nose itches and has been sore upon the inside for more than twenty-four hours. Gtt. ij at 9 A.M. 10 A.M. Watery regurgitation. Smarting of the eyelids. Slight watery coryza. 12 M. Extreme lassitude and yawning. 2 P.M. Since eating have flatulence, congestive headache, dry soreness in the throat and back nasal fossæ. 3.30 P.M. Head symptoms are relieved by walking in the open air, but the eyes feel worse, probably from the brightness of the sun. From 5 to 6 P.M., pain in the left axilla, extending down the biceps muscles, and also into the pectoral muscles. Itching of the head and neck continues. At 6 headache has decreased, but have heat and empty feeling in the stomach; heat extending up the œsophagus to the mouth. Weakness of and dull pain in the elbows and knees. Gtt. ij at 12 P.M.

5th day. Pain in the eyes and temples upon rising. Gtt. ij at 8½ A.M. At 12 M., stomach feels badly, an empty feeling and as if something to eat would relieve. Pain in the lumbar region. Itching about the occiput continues; languid tired feeling

throughout; pain in the back of the neck extending forward. Urine more profuse than usual, very light color. Gtt. ij at 2 P.M.

6th day. Sick tired feeling which I cannot describe. Pain in the small of the back. Eyes inflamed and hot. Some itching and smarting. Gtt. ij, 11 A.M. Gtt. ij, 3 P.M.

7th day. Awoke tired, with dull headache and slight vertigo. Eyes feel hot and congested. Extreme lassitude throughout. 12 M. An empty hot feeling in the stomach. A momentary buzzing in the right ear. Slight pain in the left lung on inspiration. Dull pressing pain in the forehead, temples, and back of the eyes. Stitching pains in the region of the right kidney at 1 P.M. 2 P.M. Stomach and back symptoms relieved by eating, but there is a great sense of fulness. Head feels more congested. Dull pain in the back of the neck, at the base of the occiput, relieved by bending the head back; all head symptoms aggravated by bending the head forward. 3 P.M. Ringing in the left ear. 5 P.M. Dry soreness in the throat; submaxillary glands are swollen. Headache continues. Excessive thirst has been present all day.

8th day. Arose quite refreshed. Sour disagreeable taste in the mouth. 2.30 P.M. Severe headache back of the eyes; eyes feel sore on moving them. Dull pain in the back of the head and at the base of the occiput. Nausea and heat in the stomach extending up to the throat. Head relieved by bending it back. 5.30 P.M. Head and stomach symptoms continue; headache rather increased. Faintness and heat in the stomach. Eyes hot and watery. Outer canthi itch. Head hot and full; pressure back of the eyes. Pulse from 50 to 57. 6½ P.M. All symptoms relieved by eating; no appetite at first, but after beginning to eat it became excessive.

9th day. Arose feeling pretty well, but with a slight fulness in the forehead, which soon passed away. 9 A.M. Sharp stitch like the prick of a needle in the right breast on inspiration. Fluent coryza. 5 P.M. Itching of the right thigh, both arms, and axillæ, also scalp and left ear. Papular eruption on the thigh, hot, itching, and burning.

10th day. Lassitude and dull pressure back of the eyes and through the temples continues. Appetite is a little capricious,

but comes on as I eat, so that I eat very heartily. Great flatulence.

11th day. Felt pretty well.

12th day. Gtt. ij at 11 A.M. For five days have taken none of the Fag. esc. 4 P.M. Itching of the scalp and of the face at the roots of the whiskers. Gtt. ij at 5 P.M. 6 P.M. Itching of scalp and face continues. Left auricle is hot and burning; itches upon the inside. Gtt. ij at 11 P.M. Scalp and face symptoms continue. Nose sore internally. Belching of wind follows the taking of the preparation.

13th day. Gtt. ij at 8 A.M. Felt well when I arose. At 4 P.M., soreness in the nostrils which are dry. Dry mouth with tough mucus in its back part. 5 P.M. *Dreadful itching* of the face at the roots of the whiskers; also of all parts of the body and limbs, especially of the hairy portions. Left ear hot and burning; itches within. 6 P.M. An empty faint feeling in the stomach. Gtt. ij at 11 P.M.

14th day. Pain in the temples and back of the head upon rising, relieved by bending the head back; aggravated by stooping. Eyes swollen and watery. Fluent coryza from the nose; sneezing from tickling sensation in the nose; nose sore internally, more upon left side; raw feeling throughout the nose. Thick mucus collects in the throat. No appetite for breakfast. Gtt. ij at 9 A.M. Headache has increased. Eyes burning and sore; some bland lachrymation, especially of the left eye; does not flow over cheek, but eyes have a watery look. Gtt. ij at 12 M. Lassitude. 1 P.M. Empty burning feeling in the stomach; flatulent distension; burning in the œsophagus. Pressive headache, starting sometimes with shooting pains from the back of the eyes to the back of the neck. 3 P.M. Itching continues. Upon the face there is a red eruption upon an œdematous base; face swollen around; is hot, itches, and burns, if touched. Hard difficult stool, at first light, and then dark brown. Burning in the rectum after stool. Appetite for dinner. Nose has become very sore internally. At 4 P.M., tearing pain in the right knee extending up through the hip to the lumbar region. Numbness of the legs. 10 P.M. Eyes are hot, itch and smart; margins of

lids smart; tears increased by reading; eyes feel sore, and as if pressed out, but held back by cords.

15th day. Arose feeling pretty well. Head and face itch as usual. Some numbing pains in the axillæ and knees. The papular eruption upon the face continues as upon yesterday. Gtt. ij at 8 A.M. 3 P.M. Have had a congested headache for an hour, and fulness in the front part of the head; nausea. A light-brown soft stool, with much flatus. After this, the congestion of the head slightly relieved; so the nausea. Burning in the stomach, and a chill in the back soon after stool. Lassitude and sleepiness. At 5 P.M., unpleasant feeling and rumbling in the intestines. Head and eyes worse, from motion or reading. Chills along the back. Accumulation of water in the mouth. Don't want to speak or be spoken to. 7 P.M. Feel bright and well since supper, but have some pains in the knees and thighs. Gtt. ij at 10 P.M.

16th day. Awoke feeling finely. Gtt. ij at 10 A.M. At 6 P.M., before supper, have the empty burning feeling in the stomach, which as usual is relieved by eating. 10 P.M. Very tired and languid. Dragging pain in the joints; the right knee, hip, and elbow, and the left shoulder, are most affected. Itching upon the scalp and face continues; so the eruption upon the face; itching below the scapula, on the inside of the forearm, and in the thigh; all right side. One stool to-day, brown and soft, easily expelled. Eyes feel tender to the touch; sore in the right nostril, just within the nasal bone. Flatulence. Gtt. ij at 10 P.M. Vertigo and fulness of the head upon rising, relieved by sitting still.

17th day. Tenesmus. Slept well and feel pretty well. Gtt. ij at 8 A.M. Gtt. ij at 3 P.M. 4 P.M. Pain in the head as before, relieved by bending the head back. Much flatus, distending the abdomen. Dull numbing pain in the left axilla, extending down through the arm. 5 P.M. Excessive itching of the scalp and in the left ear. Other symptoms are relieved. Lips are dry, cracked, and painful, crack extending longitudinally on the upper lip. 11 P.M. Have been feeling fairly this evening, but my eyes have been hot, burning, and glassy; eyeballs look as

if covered with tears. At 7 P.M., I had a most unbearable itching of the head and face, lasting about an hour.

18th day. Slept soundly, although was restless, and had intense itching of the scalp and face, soon after retiring. 6 P.M. Have had some headache, and a very unpleasant burning and craving in the stomach for the last hour. The sore in the right nostril, noticed two days ago, has been growing worse, is an ulcer, and has discharged some to-day. Throughout the proving there has been a daily aggravation from 3 to 6 P.M. 10 P.M. A red itching eruption along the back and on the limbs, in fact all over the body; generally several red flea-bite elevations together. Scratching causes others to appear until the surface is covered; they appear on the forehead and face. At 11 P.M., itching intense; skin abraded by scratching; red elevated points. Face swollen with heat. No suppuration. Aggravation after retiring, restless, &c.

19th day. Shall give up here, as I cannot continue the proving and attend to my studies.

22d day. I took Mr. Case's pulse, and found it over 100.

36th day. Have taken at various times since and found it exceedingly variable. Mr. Case gets better and then gets worse again. The eruption nearly heals and then breaks out again. Has granular lids.

W. E. ROUNDS, light hair and complexion. Fragmentary proving.

1st day. Jan. 21st, gtt. iv of the 10th. At 7 A.M., soon felt a slight nausea, which may have been from tasting the alcohol. A few pellets at 3 P.M. At 4.30, a smarting of the under surface of the soft palate when swallowing; frequent desire to swallow. A few pellets at 7 P.M. Soon after a feeling of dryness of the under surface of the palate and back part of the mouth. Immediately after urinating, indefinite pain in the small intestines; The urine seemed to irritate, causing an erection. 10 P.M. A dull aching pain in the left leg, through its whole extent. 10.30 P.M. Have a wavy feeling in my head. At 11 P.M., do not feel as much like study as usual; a tensive feeling of the

whole upper part of the head and the wavy sensation. Also painful raw sensation of the palate while swallowing.

2d day. Awoke this worning at 7, but not so wide awake as usual; wanted to go to sleep again, and did, but had unpleasant dreams during my last sleep. Tongue coated; bad taste in the mouth. Nose feels stopped as if I had taken cold. Scraped feeling of the palate still remains. During the day, have had occasional eructations of scalding, acid watery substance coming up into the pharynx, and so hot as to almost cause strangulation. Have less inclination than usual to mental exertion. Cannot settle my mind on one thing, cannot think clearly. Undertook to study this P.M., but could not, I felt so uneasy. From 5 to 6 a constant desire to yawn and stretch the limbs. About 10 P.M., a sharp cutting from the outer angle of the frontal bone, left side, backward and inward; also indefinite wandering pains throughout the body, which seem neuralgic; an especially marked pain in the left hip. Have that scraped sensation of the palate still remaining. Occasional dull sticking pains in the left side not affected by inspiration. Have felt lassitude of body all day. At 8½ P.M., sharp sticking pains in the left side, which come suddenly and go suddenly, a kind of kink in the side not affected by respiration. At 10½ P.M., a cutting pain in the urethra, feeling as if a knife was entering. 11 P.M. A tensive pain under the scapulæ, more the left, relieved when moving the arms, or drawing the shoulders back. All symptoms so far worse in the evening.

4th day. P.M. A rough sore feeling of the whole roof of the mouth back to the pharynx, also a sticking pain in the region of the parotid glands, especially the right. Mr. Rounds says that his uvula is elongated, and that there is a granular appearance of the soft palate, which Dr. Hills says is a result of the proving. Mr. Rounds has had nothing of the kind before.

21st day. This granular appearance continues, and he says he yet feels the effect of the proving.

M. A. WILSON, light complexion, has taken the Fag. esc. 16th a good many times, but kept no continued record of his symptoms.

1st day. Gtt. ij at 11 P.M.

2d day. Gtt. ij at 10 A.M. 7 P.M. Terrible itching of the scalp. Excessive tympanitis. Gtt. ij, 3 P.M. Has mentioned no other symptoms until the

5th day. Sharp cutting pain over external canthus of left eye. Feeling of confusion of the whole head. Slight diarrhœa with flatulence. Feeling of lameness and uneasiness in the limbs, relieved by gentle motion. Appetite not quite as good as usual. Again he mentions on the

9th day an intolerable headache extending from the forehead to the roots of the nose. Also distension of the abdomen, with flatulence. Great irritability of mind. Flea-bite eruption, itching exceedingly.

17th day. He says the eruption continues; has been worse, but is now disappearing. He says that he took the Fag. esc. occasionally, and had a great many symptoms, especially of the head and stomach, but the effort of noting them seemed a burden. He had intended to make a good proving, but felt that it interfered with his studying.

E. L. KINGSBURY, dark hair and dark complexion, has made a short proving of the 16th.

1st day. January 15th, gtt. ij at 4 P.M. 11 P.M. Gtt. ij.

2d day. Gtt. ij, 8 A.M. Think I took cold during the night. About 10 A.M. symptoms came on suddenly. A most persistent fluid coryza wholly from the left side, with burning, stinging pain in the left nostril, *high up* and very severe. Dull, oppressive pain in the left eye. Sharp, darting pain in the left occipital region radiating to the left side; *very* persistent and very marked. The above symptoms all came on suddenly and lasted several hours. Took no more until the

5th day. Gtt. x at 8 A.M. The symptoms before this have been those of ordinary cold, with the exception of the stool. Frequent desire for stool, which was of a peculiar oily consistency and extremely fetid. Gtt. x at 10 P.M. Stool the same, except more offensive; a smell of rotten eggs.

6th day. Gtt. x at 8 A.M. Stools continue of the same character. Eructations of an offensive taste. Gtt. x at 8 P.M.

7th day. Gtt. x at 8 A.M. Stool same, but larger. Eructations with general disturbed feeling of the stomach.

8th day. Mr. Kingsbury has carried this no further. He says, however, that his pulse is very irregular, and not at all alike during the first and last half of a minute.

G. A. ADAMS, of light hair and light complexion, made a proving of the 16th.

1st day. January 15th, gtt. ij, 11 P.M.

2d day. Gtt. ij, 8 A.M. Gtt. iv, 7 P.M.

3d day. Gtt. iv, 10 A.M.

4th day. Gtt. x, 10 A.M. Gtt. x, 2 P.M.

5th day. Gtt. viij, 8 A.M. Itching over the whole body. Severe itching on the scalp, also on the upper lip. Tickling, crawling feeling in spots over the body. Itching not relieved by scratching; sometimes relieved for a moment, and then followed by smarting and burning. Stools very offensive, but normal in amount; oily look, easily voided; cadaverous smell of the discharge. Head, pain in left side, through left eye and in left parietal bone, all from within outward. Dull pain all through the left side of the head, greatly aggravated by sitting still or thinking; relieved in the open air, also by talking. Pain in the occiput.

6th day. Gtt. x at 8 P.M. Itching of the eyelids. Smarting of the eyes at night; aggravated by reading. Redness of the eyes. Soreness of the alveolar process behind the lower incisor teeth. Also swelling of the gums. Gums bleed at the least provocation.

7th day. Gtt. x, 8 A.M. Have had no new symptoms that I can ascribe to the proving.

8th day. Gtt. x, 8 A.M. Dull aching pain in the legs and small of the back. Stiffness of the cords of the legs; pain whole length of the legs when walking. During this proving an eruption, which had been on my face and forehead for a long time, has disappeared. Eruption looked like flea-bites; red, raised spots, very sore, but no suppuration. Profuse sweating of the genital organs and a very offensive odor.

13th day. Dull pain in the left side of the head; pain extends from the left eye through into the occiput, and down the

left side of the neck. Stiffness of the cords of the neck, left side, on bending the head backward. Throat sore; stiffness and swelling of the fauces; feeling as if swallowing would relieve the soreness, but find it difficult, and that it also greatly increases the pain. Dull aching pain extending to the pharynx. Throat very sore and inflamed. Chest: heavy feeling in the chest. Pulsating pain all through; deepseated; no cough. Stomach: feeling of emptiness in the pit of the stomach. Canine hunger soon after eating. Easily satisfied by eating a small amount of food. Bitter taste in the mouth. Very offensive breath in the morning, also bad taste in the mouth. Abdomen: feeling of uneasiness. Heavy, aching pain in the region of the right ascending colon, also transverse colon; pain extends through to the small of the back; dull, throbbing pain. Urine: quantity normal, but frequent desire; difficulty in voiding the last few drops; think I am done, and then several drops pass, wetting my linen. Urine light-colored and clear. Stool continues oily. Extremities: pain in; *pain from the hips up to the small of the back*, also down to the feet. Aching in the tibia of the left leg. Pain in os calcis of left foot. Pulse variable; first high and then low; runs from 113 down to 90 in half an hour; very intermittent; at one time trembling and weak, then full and bounding. Face flushed. Cold clammy sweat at night, very profuse. Parotid glands swollen and very painful. Stiffness of the neck and soreness of all the muscles of the neck. Tonsils swollen and red. Throat sore and dry. Great pain on swallowing.

17th day. Mr. Adams says that many of his symptoms remain, but especially the trouble in voiding the last few drops of urine. He feels as if bruised all over, and that a slight blow occasions great soreness. The symptoms he has noted were all many times repeated, and most of them persistent. He says the itching of the pubes was so great that he feared pediculi, and removed the hair and searched for them. He has had much headache, but being subject to it, has not mentioned it.

H. W. WESTOVER, M.D., hair black, complexion dark, took a few doses of the 1st.

1st day. January 23d, gtt. x at 10 P.M. No symptoms.

2d day. Gtt. x, 9 A.M. Gtt. xv at 9.30. For a few minutes a feeling of fulness in the head. Feeling as if my breakfast rested heavy and undigested in my stomach. At 10 A.M., feeling gone. Gtt. xxx. The above sensation returned in a few minutes. At 10.55 A.M., gtt. xxx. Had a few pains in my left side. At 11.35, pains gone. Repeated the dose. Immediately a slight feeling of fulness in the head. Before taking this he was troubled with an itching after retiring at night, which has now ceased.

30th day. Dr. Westover has had a sore nose for nearly three weeks. It is dry and parched, and the mucous surface ulcerated far back; fills with dry crusts; he says it improves and then gets worse again.

GEORGE G. HITCHCOCK, M.D., light hair and light complexion, took a few doses of the 1st potency.

1st day. Jan. 27th, gtt. vj, 8 A.M. It was followed in about half an hour by a feeling of fulness in the temples, and an occasional darting pain back of the left eye, which lasted for about three hours.

2d day. Gtt. x, 11 A.M. In about twenty minutes there was a renewal of the head symptoms, and a feeling of dryness in the fauces and posterior nares, causing an almost constant desire to swallow. Gtt. xv at 2 P.M., which at once caused a great aggravation of the symptoms, and also a feeling of constriction and a darting pain in the soft palate.

3d day. A swelling has appeared on the back of my neck the size of a hen's egg, and another on my left shoulder just above the clavicle. Besides these I have several smaller ones. I suffer so much from them that I am obliged to discontinue the proving.

11th day. These swellings appear to be blind boils, and are now gradually disappearing, having no signs of suppuration. They, however, have occasioned great inconvenience, and in order to continue my business I have been obliged to secure a driver.

EMMA SCOTT, M.D., unmarried, æt. 25; fair; florid complexion; brown hair; blue eyes; happy disposition; healthy in

every respect, although sensitive to cold and damp weather; takes cold very easily.

1st day. Feb. 2d. Took gtt. ij of the 15th dilution. Jerking of the pulse a few minutes after taking the drug. Twitching of the tendons on the ulnar side of the wrist. After retiring (11.30), a severe sticking pain through the breast from the nipple backward, relieved by pressure.

4th day. Have not repeated the dose. No particular symptoms for the last few days, except a slight nausea in the abdomen, felt more or less continually.

8th day. Gtt. ij. A sharp sticking pain through the liver from behind forwards.

9th day. Neuralgic pain of the left side of the face. A sore and bruised feeling on closing the teeth tightly together at any time during the day. Hurts to open the mouth. Menses two days earlier than usual, and not so profuse. Usually suffer with pruritus directly after menstruation, but this time came on during the third evening; relieved by bathing the parts in cold water.

10th day, A.M. Gtt. ij. Neuralgic pain in the face, with a bruised sensation on closing the teeth firmly, or on moving the jaw.

11th day. Gtt. ij. Sick feeling in the abdomen before rising, relieved by discharge of flatus downwards. After rising, feverish heat of head with cold hands. Sense of fulness in forehead and occiput. Great urgency to go to stool at an earlier hour than usual. On walking out in P.M., experienced a feeling of fulness in left frontal eminence. Excessively thirsty in the evening (also at meals); drank two or three goblets of water at short intervals, and still somewhat thirsty. Shortly after experienced a sharp pain through the hypogastric region, extending into the left inguinal region. Troubled with passage of flatus early in the evening. Sharp, short-lasting pain in left temporal region off and on during the day. Neuralgic pain in the ear (tragus), early in the evening. Drowsy at 10 P.M., which is unusual.

12th day. Sick feeling in the abdomen, early in the morning, relieved by discharge of flatus. After retiring (midnight), suffered with sharp sticking pains at the apex of the heart, which lasted for fifteen or twenty minutes, aggravated by deep inspira-

tion. Did not dare move, but finally turned over on my left side, and the pain gradually disappeared. Heartburn and acidity of the stomach all day long, extending from the stomach up through the whole length of the œsophagus.

13th day. Gtt. ij. Early in the morning dreamed of prescribing for a person with wind colic, and of having it myself. Shortly afterwards waked out of a sound sleep, about 3 A.M., with the most excruciating, griping, cutting pains in the hypogastric region. The whole abdomen felt sore to the touch. The pain lasted for over an hour, relieved a little by doubling myself up and by pressing hard on the parts. With this severe colic the sharp pains of the heart come on again and last for ten minutes, though not as severe as before. Could not keep my feet quiet a moment during the paroxysms of pain.

14th day. Gtt. ij. Pulse irregular. Slight frontal headache in the morning. On walking in the P.M., out of doors, experienced a tired aching pain in the calf of the right leg, which extended up to the popliteal space; after I had been rested for awhile it passed off; when walking out in the evening it came on again with renewed force, and on seating myself, felt a sore bruised feeling in the part affected, which did not pass off until after retiring; also experienced again on rising in the morning.

15th day. Did not take the drug until the P.M.; before taking it, on going out, though I rode in a carriage, felt the same pain in calf of right leg and popliteal space. Soon after taking the gtt. ij felt a fulness in the forehead, somewhat aggravated by studying. While studying in the evening fulness of the forehead. Pulse irregular. Suffered with pruritus again. Muscular pains in the shoulders and calf of right leg, aggravated by motion.

16th day. Gtt. ij. Pulse 72 at 10 A.M.; 60 at 5 P.M. Rheumatic pain in the shoulders, particularly over the spine of the right scapula. A sore bruised feeling when moving the arm. Also felt a slight twinge on under surface of left thigh. Tasting of ingesta after dinner (6 P.M.), with eructations. Slight leucorrhœa with pruritus. Slight itching of dorsum of hand. A little pimple, very sensitive to the touch, making its appearance on the chin. Pulse 74 at 9 P.M. Right eye watery in

the evening, with smarting of the lids of both eyes as if I had a cold in the head. Early in the evening a sharp pain in superior angle of left scapula. Rheumatic pains in shoulders, felt more when quietly studying. Slight nausea at epigastrium the greater part of the time. Twitching of muscles on ulnar side of the hand. Pruritus most of the time, with slight leucorrhœa, tinging the linen yellow. Itching of external auditory meatus.

17th day. Gtt. ij. On walking out in the morning, aching bruised feeling in the right popliteal space. Pulse 64 at 11 A.M. Leucorrhœa, yellow color, not profuse. Itching of left external auditory meatus. Invariably feel the pain in the right popliteal space, when walking in the open air. Disagreeable sensation at epigastrium. Tired aching pain in the shoulders after retiring at night; also intense pruritus after going to bed. Shall take no more for a few days.

18th day. Moisture of palms of hands (unusual). Pulse 64 at 11 A.M.

19th day. No particular symptoms during the day. In evening, great dryness of the fauces, commenced at 8, and lasted for an hour or two.

20th day. Pulse irregular; 96 at 9.30 P.M. Excessive thirst in the evening; drink large quantities. For some time past have noticed a moisture of the soles of the feet (very unusual); also disagreeable odor under the arms. Occasional sharp pains in the left lung. Nose sore; formation of dry crusts in the nostrils, although a loose cold in the head constantly. Gtt. ij in the evening. Pulse 64 at 10 P.M. For several nights past, get tired, and want to retire very early (unusual); feel unusually tired to-night, and yet have neither studied nor walked out to-day. Slight constrictive feeling around the heart. Considerable leucorrhœal discharge of a bland nature, staining linen yellow; noticed more when quiet. For several days past, feeling at times as of ascarides in the rectum and around the anus.

24th day. Have not taken the drug for a few days until to-day. Gtt. ij. No symptoms during the interval noticed. Pulse 92 at 10 A.M.

28th day. Gtt. ij. Have not taken the drug since the last date. No symptoms mentioned, except having experienced a faint

nausea at epigastrium each night, at a late hour. The pain passes down into the bowels, and is wholly and invariably relieved by discharge of flatus. On walking out in the P.M., felt a slight oppression over the base of the heart, lasting only a few minutes. At 12 M., pulse 76. Pain occasionally along the course of the radial artery. Crusts form in the nose, which is very sensitive and bleeds when they are removed. 2 P.M. Frontal headache; head feels hot. During P.M., shooting pain through the left lung. Faint nausea without hunger in the evening.

29th day. Gtt. ij. Faint nausea in morning, afternoon, and evening, without desire for food. Very sleepy; sleepy early in the evening. No inclination to mental labor. Usually walk a great deal every day, but lately desire to ride everywhere I go. Pulse 68 at 9.30 P.M. After retiring (11 P.M.), rising of sour fluid in the œsophagus.

30th day. Gtt. ij. Pulse 84 at 9 A.M. Eyes feel dry and smarting, particularly at the external canthi, all the time, as if I had not slept enough. Tenderness of gums of left side in region of lower molars. For the past few days, *on walking*, a feeling in the right little toe as if a fine cord were cutting it through at the base of the nail. 1 P.M. Bruised sore feeling of left temple, and pain on opening the mouth. Pulse 68. P.M. Frontal headache with fulness and heat. On walking in P.M., a severe pain in the region of right ovary.

31st day. Gtt. ij. 10 A.M. Pulse 76, and very weak. After taking drug, a bruised pain in region of right ovary, when moving around the house. Ineffectual desire for stool, with a creeping sensation in the anus. A sore feeling across the middle of the abdomen, remaining all day long.

32d day. Gtt. ij. Soon after a pressing-out pain in the top of the head. At 11 A.M., pulse 76. Menses two days ahead of time, with colicky pains in abdomen (usual), but this time very much intensified, and came on just after the flow—usually not till several hours after the flow is established. Unable to keep the body or hands quiet while the pains lasted. Flow lasts the same length of time, but not so profuse as common. Very thirsty.

33d day. Gtt. ij. Sore feeling in abdominal region. Pulse 68 at 10½ A.M., almost imperceptible. Sore bruised feeling in the hypogastric region when moving about in P.M. In the evening on walking about, a burning fulness in the right ovary. Pulse 96, and quick at 7 P.M. Pain along radial side of index finger in evening. Eyes feel as if filled with sand about 9 P.M. Get sleepy very early in evening. If mind is diverted by conversation get wide awake. Thirsty at night. Pruritus, relieved by cold water.

34th day. Gtt. ij. Pulse 76 at 12 M. Faint nausea after dinner, at first slight but increased towards evening. Up all night, which brought on congestive headache, frontal. Nausea very much increased, which became excessive upon witnessing an operation which enlisted sympathies very much. Nausea extended down into the bowels, with griping, cutting pains followed by a diarrhœic stool. Eating relieved the nausea.

35th day. Gtt. ij. Pulse 68 at 3 P.M. Very regular.

41st day. Circumstances have prevented my taking the drug, or noting symptoms since the last date. To-day throat is quite sore, commencing on left side, apparently at upper part of the œsophagus; feel as though a lump were in the throat; hurts to swallow. Can't say it is pathogenetic. Took medicine to cure it.

43d day. Gtt. ij of 1st dilution. No particular symptoms during the day, but very thirsty in the evening.

44th day. None of the drug. Nose commences to be sore again on inside of right nostril. Crusts form although suffering from a loose cold in the head. Thirsty in evening; drink large quantities. Smarting of eyes and lids commencing yesterday P.M.; may be owing to March wind. Pain of upper, inner side of left side. Sharp stitches on left side of chest. Gtt. ij of 1st at 12 night. Slight nausea with itching here and there all over the body. Pruritus also. Feeling as if the blood rushed to the forehead.

45th day. Took gtt. ij of 1st at 11 A.M. Slight frontal headache commencing soon after taking the drug, worse in P.M., and still worse in evening. Heat of head and pain remaining in the forehead until evening, when it went to the vertex also. Late in evening it extended to root of nose. Uneasy feeling in the

rectum with desire for stool in evening. Constant discharge of flatus; rumbling of wind in rectum. Pruritus for a number of days past. Leucorrhœal discharge tinging the linen yellow. Lately the discharge is passed sensibly, never before. Thirst, commencing at 9 P.M.; drink large quantities. In an exceedingly happy state of mind. Pulse slow and almost imperceptible.

46th day. No symptoms, except slight frontal headache in the morning upon waking, and when first moving around. Thirst in evening; drink large quantities.

47th day. Gtt. iij of 1st. On taking medicine pulse beats regular but very pronounced. At 12 M., pulse very slow but distinct. Retired at 1 A.M., but did not get to sleep for two or three hours. Mind crowded with ideas.

48th day. Neuralgic pains in left side of chest in evening. Streaking pains in hands and legs, and sharp pains in feet during the entire day. Also slight nausea during most of the day. Feeling in P.M. as if rubbed with rough flannel over the body. Gtt. ij at 10 P.M.

49th day. Pain in top of head during the evening. Sharp thread-like pains of scalp. Oppression of left side of chest. Feeling in the right thigh in P.M. and evening, as if the limb was going to drop off. A tired heavy feeling. Thirsty in evening. Gtt. ij at 11.30 P.M.

54th day. Have taken none of drug since the 49th day. No particular symptoms. Great sensitiveness of left incisor on brushing teeth with cold water; never so before; obliged to use warm water. Slight nausea every day, with thirst at night regularly. Slight leucorrhœa all the time, noticed more when sitting quietly. To-night a throbbing headache in the left frontal region aggravated by movement.

61st day. Have taken none of the drug since the 52d day. For two mornings and evenings, dryness of the mouth and pharynx. Also the lips are dry and scaly. Considerable secretion of saliva. Lips become sore and festered; afterwards dry and scaly; black as ink. My heel has blistered and suppurated; exceedingly sensitive to the touch and on walking; not felt at any other time. Menses delayed two days, with nausea at the breakfast-table. Discharge normal, profuse. Mammæ not sore

until the day before, and then only slightly. Usually tender and very sensitive a week previous.

65th day. Nausea every morning at breakfast. On first day of menstruation a severe frontal headache, more on left side, congested and aggravated by movement. Bowels quite free, twice a day. Severe twinges of pain streaking up and down the left breast, outer side; also under the arm.

RÉSUMÉ.

Mind.

Have not felt so cross and irritable for many weeks. D. H.

Very cross and irritable; feeling as if a weight on the mind. D. H.

Irritable. D. H.

Great irritability of mind. M. A. W.

5. Disposition (amiable, usually) rather cross and irritable; do not wish to be talked to very much. E. S.

Spirits exhilarated; exceedingly happy, with everything going on as usual. E. S.

Retired at 1 A.M., but did not go to sleep for two or three hours; mind crowded with ideas. E. S.

Inability to apply the mind (on account of bursting and pressure in the head). D. H.

Am unable to study. D. H.

10. Cloud over the mind (1 P.M.). D. H.

Have for two hours been trying to study, but can't fix my mind at all, or remember what I read, even for a few minutes. D. H.

Have for several days been entirely unable to listen to lectures. D. H.

Never felt such a depression of spirits as during the evening. (Never felt before that I did not care to live.) D. H.

Don't want to speak, or be spoken to. E. E. C.[2]

15. Don't feel as much like study as usual. H. E. R.

Have less inclination than usual to mental exertion; cannot settle my mind on anything; cannot think clearly. H. E. R.

Undertook to study this afternoon, but could not, I felt so uneasy. H. E. R.

No inclination for mental labor. E. S.

Head.

Dizzy feeling. D. H.

20. Vertigo and confused feeling in the head. D. H.

Slight vertigo, with nausea. E. E. C.[1]

Vertigo and fulness of the head upon rising; ameliorated by remaining quiet, or by sitting. E. E. C.[2]

Headache during afternoon; dull, and pressing outward, especially in the occiput; it is relieved about 10 P.M. D. H.

Dull pain all through the head. D. H.

25. A pressure and fulness in the head (9 A.M.). D. H.

Feeling of congestion, and as if the eyes were pressed out from behind. D. H.

Bursting pressure, especially in the temples and forehead. D. H.

Pain through the whole head and occiput to the back of the neck; relieved by pressure and gentle motion, especially in cool air. D. H.

Surging through the head, which feels hot. D. H.

30. Dull aching through the whole head. D. H.

A feeling of heat in the head, and as if the head was too heavy. D. H.

Temporary relief from bending the head back, but soon followed by pulsating and pressure in the head. D. H.

At 2 P.M. the heat seems to increase; yet but little redness of the face. D. H.

Bursting pains in the head, with prostration lasting for some time after. D. H.

35. Some headache on rising. D. H.

Rose at 7 with a severe headache. D. H.

Head feels heavy. D. H.

Pressure worse on going up-stairs. D. H.

Head feels wavy. D. H.

40. Dull pain in the back of the eyes, through the head, and occiput. 120. D. H.

Pressure in the head somewhat increased after stool. D. H.

Heat in the head, and especially the back of the neck. D. H.

Upon rising, feel pretty well at first, but soon a dull headache comes on. D. H.

Throbbing all over the head. D. H.

45. Confusion of the head. D. H.

Before retiring head feels greatly pressed, as if it would split. D. H.

Whole head feels composed, as if living in a dream. D. H.

Pulsation of head was severe, and nearly the whole scalp felt

as if raised by the throbbing (after walking to the upper lecture-room in the college, in the morning). D. H.

Great pressure in the head; occasional sharp pains through; more through right eye and temple. D. H.

50. After returning from my walk (7.30 A.M.) and sitting, a severe continued pain in my head and eyes came on; great heat of head, with red face. Applying a towel wet with cold water seems to change the character of pain a little, but not much relief; after removing the towel, the forehead looks as if covered with a measle-rash. E. E. C.[1]

Slight headache, pressing outward, in the fronto-parietal region; lasted about an hour (1 P.M.). E. E. C.[1]

Fulness of the front and upper part of the head. E. E. C.[1]

Pressing headache, especially back of the eyes. E. E. C.[1]

Congestive headache (2.30 P.M.). E. E. C.[2]

55. Headache and slight vertigo on waking, with tired, dull feeling. E. E. C.[2]

Head feels more congested; and dull pain in the back part of the neck, at the base of the occiput, relieved by bending the head back. E. E. C.[2]

All head-symptoms are aggravated by bending the head forward. E. E. C.[2]

Pain in the temples and back of the head upon rising; aggravated by stooping; relieved by bending the head back. E. E. C.[2]

Pressive headache; starting sometimes with shooting pains from the back of the eyes to the back of the neck. E. E. C.[2]. 141.

60. Wavy feeling in head; never felt before, especially after hard study, though felt also before studying hard. H. E. R.

About 10 P.M., a sharp cutting from outer angle of frontal bone, left side, backward and inward. H. E. R.

Feeling of confusion of whole head. M. A. W.

Pain in left side of head, through left eye, under left parietal bone; all from within outward. G. A. A.

Dull pain all through left side of head, greatly increased by sitting still, or thinking; better in open air, also by talking. G. A. A.

65. Dull pain in left side of head; pain extends from the left eye through into the occiput and down the left side of the neck. G. A. A.

(He says that he has had a considerable headache; but, being subject to it, has not made mention of it in his provings. G. A. A.)

Feeling of fulness in the head. W.

Sense of fulness in occiput, and also in forehead. E. S.

Heat of head and pain remaining in forehead until evening, when it went to vertex also; later in the evening it left the vertex, and extended thence into root of nose. E. S.

70. Severe pain in the head, extending from the irritable surface of the nose through back of the eyes to the forehead. D. H.

Pressure in the forehead and back of the eyes, aggravated by bending forward, also by mental application. D. H.

Aching in the forehead, about eyes and back of them (5.30 P.M.). E. E. C.[2]

Intolerable headache, extending from forehead to root of nose. M. A. W.

On walking out in afternoon, experienced a feeling of fulness in left frontal eminence. E. S.

75. Feeling of fulness in forehead, somewhat aggravated by studying. E. S.

Frontal headache; head feels hot (2 P.M.). E. S.

Feeling as if the blood rushed to the forehead. E. S.

Slight frontal headache, commencing soon after taking the drug; worse in afternoon, and still worse in evening. E. S.

Slight frontal headache on waking up, and on first moving round. E. S.

80. Pressing out in both temples, quite severe. D. H.

Pain in the temples and back part of the eyes; right side worse than the left. E. E. C.[1]. 107.

Pain in eyes and temples when I arose. 110. E. E. C.[2]

Sharp pain, short lasting, in left temporal region, during the day, off and on. E. S.

Feeling of fulness in the temples, and an occasional darting pain back of the left eye, which lasted from two to three hours (in ½ hour). 104. G. G.

85. Bruised, sore feeling of left temple. E. S.

Tensive feeling of the whole upper part of the head, and then wavy sensation. H. E. R.

Pain in the top of the head in evening; sharp, threadlike pains of scalp. E. S.

Soon after taking, a pressing-out pain on top of head. E. S.

At 9 A.M., pain in occiput, sharp and stitching, on right side especially. D. H.

Pain in occiput, with sense of weariness in back of neck. D. H.

90. Itching in the occiput. E. E. C.[2]

Sharp, darting pain in left occipital region, radiating to left side, *very persistent and very marked.* C. L. K.

Pain in occiput. G. A. A.

Frequent itching of the scalp, with a sense of heat. D. H.

Occasional itching of the scalp, especially the occipital por-

tion. This itching comes on while sitting still in a warm room. D. H.

95. Itching of the scalp, and especially about the mastoid processes. E. E. C.[1]

Terrible itching of the scalp. M. A. W.

Head symptoms ameliorated by walking in the open air. D. H.

Head worse by motion and reading. E. E. C.[2]

Carotids throb violently, and even a light pressure over them causes a bursting pressure in the head. 271. D. H.

Eyes.

100. Eyes feel blurred; objects appear indistinct. D. H.

Objects blurred, as if a thin secretion over the eye obstructed the light; still the eyes seem dry and are red; have a kind of glassy look. D. H.

Things seem obscure and wavy. D. H.

The eyes feel sensitive upon closing them tightly; a roughened feeling upon motion of the lids, especially of the left eye. D. H.

Occasional darting pain in back of left eye, with fulness in temples (lasting 2 to 3 hours), (84 in ½ hour). G. G.

105. External canthi sore, with constant burning irritation; relieved by moving the lids very slowly. D. H.

Eyes feel sore and hot. D. H.

Pain in temples and back part of eyes; right side worse than left. 81. E. E. C.[1]

Eyes itch, especially left eye. D. H.

Conjunctiva reddened, and feeling as if roughened; more in the left eye. D. H.

110. Pain in eyes and temples when I arose. 582. E. E. C.[2]

Itching of outer canthi. D. H.

Many shooting pains, of short duration, in the back parts of the eyes and around them. D. H.

Conjunctiva reddened. D. H.

Itching of the edges of the lids and burning. D. H.

115. Eyes red, with swollen lids. D. H.

Pains through back part of each eye, especially the left. D. H.

Itching of the eyes upon motion, and of the borders of the lids. D. H.

Acute itching in edges of the lids. D. H.

Eyes feel dull, with dark rings under them. D. H.

120. Dull pain in back of eyes; through head and occiput. 40. D. H.

Lids swollen and itch, but never agglutinated. D. H.

Lids feel much swollen. D. H.

Pain in the eyes, sharp and continued, extending to the right ear. D. H.

Eyelids sore and itch. D. H.

125. Eyes red; sting and itch. D. H.

Eyes sore, and smart by closing lids. D. H.

Eyes much sorer, and closing them just simply hurts; more under lid of left eye. D. H.

During the proving I had drooping of the right eyelid, which, at the time, I hardly thought came from this; it has now disappeared. D. H.

Meibomian glands of left lower lid inflamed. D. H.

130. Lids of both eyes very red and sore. D. H.

Eyes feel sore about the edges of the lids, also hot and inflamed. E. E. C.[2]

Smarting of the eyelids. E. E. C.[2]

Eyes inflamed and hot; some itching and smarting. E. E. C.[2]

Eyes feel hot and congested. E. E. C.[2]

135. Muscles of eyes feel sore on moving them. E. E. C.[2]

Eyes feel sore, and as if pressed out, and, at the same time, held back by cords. E. E. C.[2]

Eyes feel tender to the touch. E. E. C.[2]

Eyes hot, burning, and glassy. E. E. C.[2]

Has granular lids. E. E. C.[2]

140. Sharp, cutting pain over external canthus of left eye. M. A.W.

Pressive headache; darting sometimes, with shooting pains from back of eyes to back of neck. 59. E. E. C.[2]

Dull, oppressive pain in left eye. C. L. K.

Itching of eyelids, G. A. A.

Smarting of eyes. G. A. A.

145. Burning itching of the eyes by night, increased by reading. G. A. A.

Redness of the eyes. G. A. A.

Eyes feel dry and smarting, particularly at external canthi, all the time, as if had not slept enough. E. S.

Eyes commenced to feel as if filled with sand about 9 P.M. E. S.

Eyes rather watery in appearance, yet not a very great over-secretion. D. H.

150. Eyes hot and watery; outer canthi itch. E. E. C.[2]

Eyes swollen and watery. E. E. C.[2]

Eyes burning, and some lachrymation, especially of the left eye—bland. This lachrymation does not flow over the cheek, but there is a watery look to the eyes. E. E. C.[2]

Eyes are hot, and itch and smart on edges of lids; tears increased by reading. E. E. C.[2]

Eyeballs look as if covered with tears. E. E. C.[2]

155. Watering of right eye in the evening, with smarting of lids of both eyes, as if she had a cold in the head. E. S.

Eyes worse by motion and reading. E. E. C.[2]

Ears.

Ears itch, and sounds seem muffled at intervals, but only for a few minutes at a time. D. H.

Momentary buzzing in right ear. E. E. C.[2]

Ringing in left ear. E. E. C.[2]

160. Soreness within the left auditory canal; sensitive to touch. D. H.

Dull pain, extending from the left ear to the throat, upon swallowing. D. H.

At 8 P.M., sharp pain extending from the right ear down the Eustachian tube to the submaxillary gland; continued for several minutes. D. H.

Itching of the right auditory canal. D. H.

Sharp pain in right ear. D. H.

165. 7.30 P.M. Shooting pain in the region of the right ear, extending back to the occiput. E. E. C.[2]

Left auricle is hot and burning; itches upon the inside. E. E. C.[2]

Left ear hot and itching within; also burning. E. E. C.[2]

Neuralgic pain in ear (tragus), early in morning. E. S.

Itching of external auditory meatus. E. S.

170. Itching of left external auditory meatus. E. S.

Nose.

Nose sore and excoriated within; slightly swollen. D. H.

Itching of alæ nasi, externally and internally. D. H.

Alæ nasi sore and excoriated internally; hot and swollen; septum nasi also itches, and is sore. D. H.

Nose sore and fills with scabs, which are easily removed, but followed by itching and burning. D. H.

175. Touching the nose internally causes burning and itching. D. H.

Itching is induced by scratching or rubbing. D. H.

Pain (in nose) caused by breathing cool air—not sharp, but aching pain. D. H.

Coryza; a little bloody. D. H.

Pain, extending from inner surface of nose up behind the eyes, upon inhalation. D. H.

180. Nose soon became stuffed and full, with feeling of pressure behind the eyes, and through the anterior portion of the head. D. H.

Quite fluent coryza; nose alternately stuffed and clear through the day. D. H.

Nose feels dry, and is much sorer. D. H.

Nose very sore, and pain extends from it to the head. D. H.

Can hardly touch the nose. The whole internal surface is dry and hot, and feels as if raw. D. H.

185. Whole inner surface of nose, far back, feels dry and as if parched; itches and burns; occasionally a watery flow, which dries up immediately. D. H.

The whole interior surface of nose, far back, is sore and covered with dry scabs. D. H.

Septum nasi deeply cracked, and has a peculiar gnawing sensation. D. H.

Nose burns, and there is a stinging, gnawing pain; can hardly keep my hands from it. D. H.

Slight epistaxis soon after rising in the morning. D. H.

190. Whole inner surface of nose burns, with a gnawing, stinging feeling; especially the septum nasi. D. H.

Have a watery coryza, which soon passes off. D. H.

Whole interior surface of nose seems dry, and as if contracted; gnawing, as usual. D. H.

Before rising, about 5, had a fluent coryza, which passed off about 7.30, and the nose became dry again. D. H.

The whole inner surface of nose, as far as can be seen, is ulcerated; occasionally, a white mucous discharge, but soon dry again; constant gnawing and heat; from it, a bad feeling extends through the head. D. H.

195. Nose usually is much less sensitive in the morning, but gets sorer in middle of forenoon, and still sorer during afternoon. D. H.

Nose itches, and has been sore upon the inside for more than twenty-four hours. E. E. C.[2]

Slight watery coryza. E. E. C.[2]

Fluent coryza. E. E. C.[2]

Soreness in the nostrils; dry nostrils. E. E. C.[2]

200. Fluent coryza from nose; sneezing from tickling sensation in nose; nose sore internally, near the tip, especially upon left side; raw feeling throughout nose. E. E. C.[2]

Sore in right nostril, just within the nasal bone. E. E. C.[2]

The sore in right nostril, noticed two days ago, has been growing worse; is an ulcer, and has discharged some to-day. E. E. C.[2]

Nose feels stopped, as if he had taken more cold. H. E. R.

A most *persistent* fluent coryza, *wholly* from the left side, with burning stinging pain in left nostril, higher up, and very intense. C. L. K.

205. Has had a sore nose for over two weeks, it is dry and parched, and the mucous surface ulcerated far back; fills with dry scabs, improves, and then gets worse again. W.

Nose sore; formation of dry crusts in nostrils, although a loose cold in head, constantly. E. S.

Crusts form in the nose, very sensitive, and bleed when removed. E. S.

Face.

Toward evening, the left malar bone becomes sore, and also the temporal region; this causes pain and pressure in the left eye, upon closing the jaws firmly, as during mastication. D. H.

Neuralgic pain of left side of face; a sore and bruised feeling on closing the teeth tightly together, at any time during the day. Hurts to open the mouth. E. S.

210. Pale face; at times flushed; dark under the eyes. D. H.

Uneven redness of the face. D. H.

Face feels hot and dry, as if it would peel all over. E. E. C.[2]

Upon the face, a red eruption, on a swollen œdematous base; face swollen around it; hot; itches and burns if touched. E. E. C.[2]

During this proving, an eruption which had been on my face and forehead for a long time, has disappeared; eruption looked like flea-bites; red, raised spots, very sore, but no suppuration. G. A. A.

Mouth.

215. Lips dry; crack and peel. D. H.

Upper lip has an itching and drawing feeling, as if the skin was too tight. D. H.

Have vesicles on lips and in mouth, and yet no indications of a cold. D. H.

Corner of mouth, right side, is sore, dry, hot, and deeply cracked. D. H.

Burning of the lips. D. H.

220. Lips dry, cracked and sore. D. H.

Lips are dry, cracked and painful; crack extending longitudinally upon the upper lip. E. E. C.[2]

For two mornings, and evenings following, sensation of dry-

ness of the mouth and pharynx; also, the lips dry and scaly, with considerable secretion of saliva; lips become sore, fissured; afterwards dry and scaly; black as ink. E. S.

A little pimple, very sensitive to touch, makes its appearance on the chin. E. S.

Dull pain in left inferior canine tooth. D. H.

225. Tenderness of gums of left side, in region of lower molars. E. S.

Soreness of the alveolar process behind lower incisors; also, swelling of the gums; gums bleed at the least provocation. G. A. A.

Great sensitiveness of left incisor on brushing the teeth with cold water (never experienced before); obliged to use warm water. E. S.

Mouth tastes badly. D. H.

Sour disagreeable taste in mouth, on rising in the morning. E. E. C.[2]

230. Bad taste in mouth. H. E. R.

Bitter taste in mouth. G. A. A.

Tasting of ingesta after dinner (6 P.M.), with eructations. 336. E. S.

Tongue very red, all the time. D. H.

Tongue bright red; so the soft palate and isthmus of fauces; so all parts that can be seen. 254. D. H.

235. Thin white coating on tongue, but the red shows through. D. H.

Tongue bright red; moist; fissured deeply along its edges. D. H.

Tongue coated. H. E. R.

Saliva accumulates in mouth, with gaping and belching of wind. 287. D. H.

Saliva accumulates in the mouth. D. H.

240. Dry mouth, with tough mucus in the back part of it. E. E. C.[2]

Accumulation of water in mouth. E. E. C.[2]

Uvula elongated; with granular appearance of soft palate. 255. H. E. R.

Very offensive breath in the morning; also, bad taste in the mouth. G. A. A.

Swelling in roof of mouth, extending from the edge of palate bone forward; it seems like a diffuse swelling; not very sore, but feels unpleasantly. D. H.

245. Soon after taking, feeling of dryness of under surface of palate and back part of mouth. H. E. R.

Rough, sore feeling of the whole roof of mouth, back to the

pharynx; also, a kind of sticking pain in region of parotid glands, especially the right. H. E. R.

Throat.

Throat is sore, and feeling as if excoriated; aggravated by swallowing; the inner surface feels dry and parched; and yet more than a normal amount of saliva in the mouth. D. H.

Throat is sore, and aches just back of the isthmus of the fauces; feels as if raw and bruised; aching pain extends downwards. D. H.

Soreness upon swallowing. D. H.

250. Throat sore and aches; especially the upper part of the pharynx. D. H.

Bright redness of soft palate and isthmus of fauces. 234. D. H.

Fauces feel scraped and sore; aggravated by swallowing. D. H.

Throat very sore, especially the soft palate and the pillars of the fauces. This soreness does not extend back into the pharynx. There is an irritation which provokes swallowing; but this occasions a sore, scraping sensation, and a kind of dull pain. D. H.

Throat very sore; not far back, but isthmus of fauces feels as if raw; constant aching pain increased by swallowing. This pain seems to diffuse itself through the head, especially affecting the ears. D. H.

255. Uvula elongated, with granular appearance of soft palate. 242. H. E. R.

About 4 A.M., great soreness in region of right tonsil. Succeeded in throwing off a hard, offensive, cheesy mass, about the size of a pea. D. H.

Dry soreness in throat and back of the nasal fossæ (3.30 P.M.). E. E. C.[2]

Thick mucus forms in throat. E. E. C.[2]

Smarting on the under surface of soft palate, when swallowing. H. E. R.

260. Frequent desire to swallow. H. E. R.

Painful raw sensation of palate when swallowing. H. E. R.

Throat sore; stiffness and swelling of fauces. G. A. A.

Feeling as if swallowing would diminish the soreness; but, upon making the attempt, finds it difficult to swallow, which also greatly aggravates the pain. G. A. A.

Dull, aching pain, extending to the pharynx. G. A. A.

265. Throat very red and inflamed. G. A. A.

Tonsils swollen and red. G. A. A.

Throat sore and dry; great pain on swallowing. G. A. A.

Feeling of dryness in the fauces and posterior nares, causing an almost constant desire to swallow. G. G.

Feeling of constriction and darting pain in soft palate (immediately). G. G.

270. Carotids throb violently, and even a light pressure over them causes a bursting pressure in the head. 99. D. H.

Can look in the glass and count the pulse by observing the throbbing of the carotids. D. H.

Swelling, size of pea, over the trachea, which is very sore and hard; has continued for several days. D. H.

In afternoon, scarlet redness of neck below the mastoid processes. D. H.

During the forenoon, frequent sharp pain down the left anterior portion of neck, with a feeling of soreness. D. H.

275. Stiffness of the cords of the neck, left side, on bending the head backward. G. A. A.

Stiffness of neck, and soreness of all the muscles of the neck. G. A. A.

Submaxillary glands enlarged. D. H.

Left submaxillary gland sore, and pain from it to the ear. D. H.

Submaxillary glands swollen. E. E. C.[2]

Soreness in region of submaxillary glands, especially left side. D. H.

280. Carotids throb. D. H.

Several red blotches on neck; sore and irritated. D. H.

Parotid glands swollen, and *very* painful. G. A. A.

Stomach.

Appetite good, and temporary relief of symptoms while eating supper. D. H.

285. No special desire for dinner (generally, while taking the medicine), but like to eat, after once beginning. D. H.

Saliva accumulates in mouth, with gaping and belching of wind. 238. D. H.

Eat dinner, but have no desire for it. D. H.

Appetite is a little capricious, but comes on as I eat, so that, finally, I eat very heartily. E. E. C.[2]

No appetite for breakfast. E. E. C.[2]

290. Appetite not quite so good as usual. M. A. W.

Canine hunger, soon after eating. G. A. A.

Easily satisfied by eating a small amount of food. G. A. A.

Faint nausea in morning, afternoon, and evening, without desire for food. E. S.

Some thirst (5 A.M.). D. H.

295. Excessive thirst all day. E. E. C.[2]

Excessively thirsty in the evening (also at meals); drank two or three goblets of water, at short intervals, and still somewhat thirsty. E. S.

Thirst in the evening, regularly. E. S.

Nausea, almost to vomiting, constantly, and a sore feeling in the stomach; all relieved by belching wind. D. H.

300. Nausea and heat in stomach, extending up to the throat. E. E. C.[2]

Slight nausea in the abdomen, felt more or less continually. E. S.

Slight nausea at epigastrium, the greater part of the time. E. S.

Faint nausea at epigastrium, each night, at a late hour; the pain finally passes down into bowels, and is perfectly and invariably relieved by discharge of flatus. 374. E. S.

Faint nausea after dinner, at first slight, but increased toward night. Nausea very much increased after being up all that night. E. S.

305. Slight nausea, with itching here and there, all over the body, with pruritus (vulvæ) also. E. S.

Nausea every morning, at breakfast. E. S.

Belching of wind follows the taking of the preparation. E. E. C.[2]

During the day occasional eructations of scalding, acid, watery substance, running up into the pharynx, and so hot as almost to cause strangulation. H. E. R.

Eructations of an offensive odor or taste. C. L. K.

310. Eructations, with general disturbed feeling of the stomach. C. L. K.

Acidity of stomach and heartburn all day long, extending thence through the whole length of the œsophagus. E. S.

After retiring (11 P.M.), rising of sour fluid in the œsophagus. E. S.

Belching of wind, with griping. D. H.

At 7 P.M., felt uneasiness of stomach, and weight, and as if it had received some hot substance; no real pain, but a bruised sensation and uneasiness; continues through the evening, and at ten o'clock, almost impossible to remain sitting; feeling as if something to eat would relieve; after belching wind, this feeling passes off in part, but soon returns. (Do not remember belching wind before; an entirely new symptom for me.) D. H.

315. Stomach feels as if bruised and hurt; a feeling of depression, and a kind of gnawing, and yet no hunger; diminished, however, by eructations. D. H.

At noon, an hour before dinner, the stomach feels empty and distressed. D. H.

Stomach feels as if something was moving in it, causing a sore, distressed feeling; relieved by belching wind. (Never had a similar feeling before.) D. H.

In the evening, stomach has an aching, distressed feeling, and gnawing; relieved by belching wind. D. H.

In evening, a peculiar feeling of uneasiness in the stomach, as if there would be nausea. D. H.

320. At 12 M., stomach aches and feels depressed. D. H.

Stomach feels unsettled. D. H.

Tenderness over stomach. D. H.

Severe cutting pain in stomach, after eating an apple. D. H.

Watery regurgitation. E. E. C.[2]

325. Heat and empty feeling in stomach; heat extends up the œsophagus to mouth. E. E. C.[2]

Stomach feels badly; an empty feeling; feels as if something to eat would relieve (12 M.). E. E. C.[2]

Faintness and heat in stomach. E. E. C.[2]

Burning in the œsophagus. E. E. C.[2]

Flatulent distension of stomach. E. E. C.[2]

330. Feeling of emptiness in pit of stomach. G. A. A.

Feeling as if breakfast rested heavy and undigested on his stomach. W.

[Operations never affect me unpleasantly; but for the first time witnessing an operation where sympathies were very much enlisted, caused the nausea to become excessive, extending down into bowels, with griping, cutting pains, followed by a diarrhœic stool; eating relieved the nausea. (Can't say whether the above symptoms were pathogenetic of the drug in question.) 375, 405. E. S.]

Stomach and back symptoms relieved by eating; but there is a great sense of fulness. E. E. C.[2]

Belching of wind always relieves temporarily the pain around the heart. D. H.

335. Tasting of ingesta after dinner (6 P.M.), with eructations. 232. E. S.

Abdomen.

Continued and severe aching pains in the abdomen. D. H.

Marked itching over pubic bone, in the afternoon. D. H.

Abdomen very much distended but no rumbling of wind. D. H.

Aching pains all through the abdomen, which come on after a large, pappy stool. 383. D. H.

340. Eructations, but the abdomen not distended. D. H.

Some sharp pains through the abdomen after retiring. D. H.

Soon after stool, dull pain in the abdomen, and a half-aching sensation through the body. D. H.

Abdomen distended; tympanitic over the cæcum and ascending colon; elsewhere, dull aching pain, which seems deep in, and as if it might originate in the arteries; extends to region of heart, and is increased by bending forward. 478. D. H.

Have to loosen my clothes, as the abdomen is distended, and pressure increases the pain and uneasiness through the body; also the suffocative feeling, which, I believe, starts from the heart. 373. D. H.

345. About 6 A.M., had a severe aching pain in the abdomen, which forced me to rise and go to stool. 406. D. H.

Tenderness over the whole abdomen upon hard pressure. It occasions great uneasiness around the heart. D. H.

Pressure upon abdomen from sitting suddenly causes severe pain around heart. 476. D. H.

10.40 A.M. Aching pains through the whole abdomen with severe tenesmus. D. H.

Aching pain through the whole abdomen and thorax, but especially in the region of the diaphragm, and up through left side. D. H.

350. 11 A.M. For the last fifteen minutes have had severe aching pains through the abdomen, in paroxysms, with tenesmus, nausea, and hot flushes, with moisture over the body. No desire for stool. D. H.

After eating, abdomen distended and tympanitic over right side. D. H.

10 A.M. Pains in region of liver, and bruised sore feeling. D. H.

Pain in region of liver, upon bending forward. D. H.

When lying on right side, quite severe pain in the region of the liver and soreness over the liver; pains around the heart; was obliged to lie upon my back. D. H.

355. In evening, was very thirsty, and drank two goblets of water. In about five minutes had severe cutting pain through the abdomen, and was obliged to sit down. D. H.

Occasional sharp pain in region of liver. D. H.

Fulness of abdomen, relieved by belching gas. E. E. C.[2]

Flatulence, since eating. E. E. C.[2]

Immediately after urinating, indefinite pain in the small intestines. 316. H. E. R.

360. Excessive tympanitis. M. A. W.

Heavy, aching pain in region of right ascending and trans-

verse colon; pain extends through to the small of back; a dull, throbbing pain. G. A. A.

Sharp sticking pain through liver, from behind forward. E. S.

Sharp pain through hypogastric region, extending up into left inguinal region. E. S.

Waked out of a sound sleep (about 3 A.M.), with the most excruciating griping-cutting pains in the hypogastric region. The whole abdomen felt sore to the touch. The pain lasted for over an hour; relieved a little by doubling myself up and pressing hard on the parts. E. S.

365. Dull aching pain through the stomach and abdomen, becoming severe as the stomach becomes empty; is relieved by eating, but soon followed by bruised pain, at times severe; lasts all the evening, and is greatly aggravated by sitting still, and relieved by motion. D. H.

Sore pain across middle of abdomen remaining all day long. E. S.

Sore, bruised feeling in hypogastrium when moving about in afternoon. E. S.

Flatulence. D. H.

Fulness of the abdomen; relieved by belching gas. E. E. C.[2]

370. Great flatulence. E. E. C.[2]

Unpleasant fulness and rumbling in the intestines. E. E. C.[2]

Distension of abdomen with flatulence. M. A. W.

Troubled with discharge of flatus early in evening. E. S.

Faint nausea at epigastrium, each night at a late hour. The pain finally passes down into bowels, and is perfectly and invariably relieved by discharge of flatus. 303. E. S.

375. When witnessing an operation, nausea became excessive, extending down into bowels, with griping, cutting pains. 332, 405. E. S.

Stool and Anus.

Stool soft, dark and pappy; forcibly expelled; preceded and followed by tenesmus; yesterday only one small stool. D. H.

Stool, with some tenesmus; thin, pappy, and almost watery. D. H.

At 10 P.M., watery stool, with considerable flatulence. D. H.

Pappy stool; rather large. D. H.

380. Pappy stool, with flatulence. D. H.

Stool at 8.30 A.M. a little loose. D. H.

At 11 A.M., stool, with severe pain in rectum, extending down thighs and legs to heels. 623. D. H.

Large pappy stool, preceded by aching pains all through abdomen. 339. D. H.

Stool abundant; pappy at first, and then watery; passed with force; followed by severe tenesmus for ten minutes. D. H.

385. Soft, dark stool. D. H.

Large, soft, dark stool at 8 A.M.; easily expelled. D. H.

Had to get up at 5 this morning and go to stool; stool with tenesmus. D. H.

During the forenoon two stools more; all thin, and the last watery, and with great tenesmus. (Am not sure that this was not caused by eating an apple last evening, though not accustomed to such a consequence.) D. H.

11.30 A.M. Soft, pappy stool, with flatulence; very little tenesmus during stool, but it becomes quite severe after it (usual stool this morning at 8). D. H.

390. 8.30 A.M. Stool large and soft. D. H.

Hard, difficult stool; light-yellow and then dark-brown; burning in rectum after the stool. E. E. C.[2]

Moist, soft stool; light-brown, with much flatus; soon followed by a chill in the back. E. E. C.[2]

One stool to-day; brown, soft, and pappy; moist and easy; E. E. C.[2]

Tenesmus. E. E. C.[2]

395. Slight diarrhœa, with flatulence. M. A. W.

Frequent desire for stool, which was of a peculiar oily consistency, and extremely fetid; afterward smelling like rotten eggs. C. L. K.

Stools very offensive, but normal in amount. G. A. A.

Oily-looking, easily voided stools, with cadaverous smell. G. A. A.

Great urgency to go to stool at an earlier hour than usual in the morning. E. S.

400. For several days past, feeling at times as of ascarides in rectum and around anus. E. S.

Desire for stool in afternoon; seemed ineffectual, or rather uncompleted; accompanied by a creeping sensation in anus. E. S.

Uneasy feeling in rectum, with desire for stool in evening; with constant discharge of flatus. E. S.

Rumbling of wind in rectum. E. S.

Bowels move quite freely, twice a day; lately rather loose. E. S.

405. When witnessing an operation, diarrhœic stool, preceded by nausea, with griping, cutting pains in bowels. 332, 375. E. S.

About 6 A.M., severe aching pain in abdomen, forcing him to rise and go to stool. 345. D. H.

Urinary.

Urine rather increased. D. H.

Urine rather increased in amount; chlorides abundant; slightly acid. D. H.

Urine more profuse than usual; very light color. E. E. C.[2]

410. Quantity of urine normal, but frequent desire. G. A. A.

Difficulty in voiding last few drops; think I am done, and afterwards several drops pass away, wetting my clothes. G. A. A.

Urine light-colored and clear. G. A. A.

The urine seemed to irritate, causing an erection. H. E. R.

415. Cutting pain in the urethra; feeling as if a knife was entering. H. E. R.

Immediately after urinating, indefinite pains in small intestines. 359. H. E. R.

Sexual Organs.

Pain from left testicle up through the left side; a bruised, aching pain. D. H.

Before proving this preparation, I had been troubled for a long time with a very offensive perspiration of the genital organs. This perspiration was very profuse. Now it is slight, and its offensive character entirely gone. D. H.

Profuse sweating of genital organs and very offensive odor. G. A. A.

420. Menses delayed two days, with nausea; at the breakfast table no appetite; discharge normal; profuse. E. S.

Menses two days earlier than usual and not so profuse; usually suffer with pruritus directly after menstruation, but this time came on at third evening; relieved by bathing the parts in cold water. E. S.

Menses lasted usual time, but less profuse; not followed by the usual pruritus. E. S.

Menses two days ahead of time, accompanied with severe colicky pains in abdomen (usual, but this time very much intensified), coming on directly after flow commenced; usually does not come on for several hours after flow is established; unable to keep body or limbs quiet while pains lasted. E. S.

Pruritus most of the time, with slight leucorrhœa, tinging the linen yellow. E. S.

425. Intense pruritus after going to bed. E. S.

Lately the leucorrhœal discharge is passed sensibly; never felt before. E. S.

Considerable leucorrhœal discharge of a fluid nature, tinging linen yellow; noticed more when quiet. E. S.

On walking in afternoon severe pain in region of right ovary. E. S.

After taking drug, bruised pain in region of right ovary when moving around the house. E. S.

430. Mammæ not sore until the day before, and then only slightly; usually tender and very sensitive a week previous. E. S.

Respiratory.

Touching the neck just under the lobe of the right ear occasions a cough, with a smarting sensation extending to the ear and throat; have had no irritation that occasioned a cough before. D. H.

Feel as if I must take a long, deep inspiration, and yet this does not satisfy. Have to loosen my clothes. D. H.

Chest.

Sharp pain just below left clavicle. D. H.

Dull aching all through chest. D. H.

435. Towards 6 P.M., the bruised feeling extends up through the chest. This bruised pain is increased by deep inspiration. D. H.

Much pain around heart, and through chest, both sides. 460. D. H.

11 P.M. Have been bending forward to write, and have a constant, severe pain through both sides of chest, and through the liver; at noon, in my room, have to walk constantly. D. H.

Dull pain through both sides of chest, with an occasional sharp stitch. D. H.

Pain around the heart comes on while walking; also, while sitting; ameliorated by gentle motion. 464. D. H.

440. Exertion, mental or physical, brings on pain, both in my head and around my heart. D. H.

At 1.30 P.M., stitches in the right breast on inspiration. E. E. C.[1]

Slight pain in left lung on inspiration. E. E. C.[2]

Sharp stitch, like the prick of a knife, in the right breast, on inspiration (9 A.M.). E. E. C.[2]

On the night of first day, after retiring, a severe sticking pain, from the right nipple backward, relieved by pressure. E. S.

445. Occasional dull sticking pains in left side; not increased by deep inspiration. H. E. R.

Occasionally sharp pains in left lung. E. S.

Sharp stitches in left side of chest. E. S.

Sharp, sticking pains—kind of kink—in left side, coming and going suddenly; unaffected by respiration. H. E. R.

Neuralgic pains in left side of chest in evening. E. S.

450. Severe twinges of pain streaking up and down left breast, outer side; also under the arm. E. S.

Soreness up through left side upon inspiration. D. H.

Upon deep inspiration, a sore pain in left side occasionally; also in right side. D. H.

Heart and Pulse.

Occasional shooting pains in region of heart, with sense of heat over body. D. H.

455. Sharp stitches in region of heart, with the pain in left shoulder. D. H.

Pains in region of heart upon bending forward to write. D. H.

Sense of uneasiness in region of heart; pulse 58. D. H.

Occasional rather dull pains in region of heart. D. H.

Sharp pain in region of heart, extending down from the shoulder; also extending down the arm. D. H.

Dull pain in region of heart, causing general depression of spirits. D. H.

460. Much pain around heart, and through chest, both sides. 436. D. H.

Dull pain around heart soon after waking. D. H.

11.30 A.M. Sharp pain in region of heart, seeming to go directly through it. D. H.

Pain around the heart comes on while walking; also while sitting; ameliorated by gentle motion. 439. D. H.

Depression about the heart. D. H.

465. Exertion, mental or physical, brings on pain, both in head and around heart. D. H.

3 P.M. Dull, aching pain around the heart, relieved by light pressure. D. H.

8.10 P.M. The pains around the heart become quite sharp, and are increased by respiration. D. H.

Sharp pains of heart with the severe colic. E. S.

8 P.M. Gnawing pains around the heart, quite severe, with stitches; relieved upon belching wind. D. H.

470. Pains around the heart; gnawing pains; sometimes sticking, and extending to the region of the elbow. 563. D. H.

Feeling of soreness in region of heart. D. H.

Have to press hand over the heart, as this relieves the depression and pain. D. H.

Have to loosen clothing to relieve suffocative feeling, which seems to start from heart. 344. D. H.

As I arose this morning, immediately severe and frequent pain

seemed to pass directly through my heart, and my pulse became very irregular at once. D. H.

475. Pressure upon the abdomen from sitting suddenly causes severe pain around heart. D. H.

Hard pressure on abdomen occasions great uneasiness around heart. 347. D. H.

4 P.M. Woke from sleep with a stinging pain through the heart; pains are principally from the upper margin of third rib to lower border of fourth. D. H.

Aching pain in abdomen extends to region of heart, and is increased by bending forward. 443. D. H.

Belching of wind always relieves temporarily the pain around the heart. D. H.

480. With the severe colic the sharp pains of the heart come on again, and last for ten minutes; less severe than before. Could not keep feet quiet a moment during the paroxysms of pain. E. S.

Slight, constrictive feeling around heart. E. S.

On walking out, in afternoon, felt a slight oppression over the region of the base of the heart, lasting only a few minutes. E. S.

483. After retiring (midnight) suffered with sharp, sticking pains at the region of the apex of the heart, lasting fifteen or twenty minutes; aggravated by inspiration; did not dare move, but finally turned over on left side, and pain gradually disappeared. E. S.

484. Pulse 82. D. H. 6 P.M., pulse 80; 9 P.M., pulse 66. D. H. 12 M., pulse 68; 1 P.M., pulse 83; 5 P.M., pulse 70; 6.20 P.M., pulse 80; 11 P.M., pulse 72. D. H. 7.45 P.M., pulse 84; 9.15 P.M., pulse 72; 1.20 P.M., pulse 81; 5 P.M., pulse 65; 6 P.M., pulse 60. D. H. 9 A.M., pulse 74 to 80; 12 M., pulse 60; 10 P.M., pulse 58. D. H. 7 A.M., pulse 78; 8 A.M., pulse 66; 8.30 A.M., pulse 80–90; 11 A.M., pulse 60. D. H. 4.30 P.M., pulse 87; 5.20 P.M., pulse 89; 6 P.M., pulse 89; 6 P.M., pulse 72. D. H. 9.45 A.M., pulse 67. D. H. 11.30 A.M., pulse 65. D. H. 11 P.M., pulse 66. D. H. 8 P.M., pulse 87. D. H. 8.45 P.M., pulse 88. D. H. 11 P.M., pulse 66. D. H. Pulse (on rising) 72. D. H. 11 P.M., pulse 67 to 74. D. H. 8.30 A.M., pulse 82. D. H. 3 P.M., pulse 120. D. H. 1 P.M., pulse 90. D. H. 7 P.M., pulse 98. D. H. 1.30 P.M., pulse 98. D. H. Pulse 74. E. S. 10 A.M., pulse 72; 5.30 P.M., pulse 60. E. S. 9 P.M., pulse 74. E. S. 11 P.M., pulse 64. E. S. 10 A.M., pulse 92; pulse 76 at 12 M. E. S. 9.30 A.M., pulse 68. E. S. 9 A.M., pulse 84. E. S. 1 P.M., pulse 68. E. S. 11 A.M., pulse 76. E. S.

485. Pulse 76; full and strong. D. H.

Pulse 90, weak and a little irregular. D. H.

7.40 A.M., hands cold, pulse 72; 8 A.M., hands hot, pulse 97. D. H.

Jerking pulse. D. H.

After stool, pulse 80; after eating (7.20 P.M.), pulse 73; 11 P.M., pulse, while sitting, 73; while standing, 84. D. H.

490. The slight pressure from taking the pulse causes pain to extend up the arm and through the hand. This has been repeatedly. D. H.

2 P.M., pulse while sitting, 74; standing, 90. D. H.

3 P.M., pulse 74; 3.50 P.M., feel the heart beat; pulse 99; an occasional double beat, and a feeling of depression about the heart. D. H.

After supper (6.30 P.M.), pulse 82; 8 P.M., just come in from a walk, did not walk fast, pulse, while standing, 108; sitting, immediately after, 88; 11 P.M., pulse, sitting, 67; standing, 74. D. H.

7.30 A.M., pulse, sitting, 84; standing, 102. D. H.

495. The pulse constantly changes in quality; at times free and round, and soon after can hardly be felt; a clinging pulse, the beats seem to hold on. D. H.

After walking slowly to college and back, pulse 138; after sitting half an hour, pulse 80. D. H.

When another is taking my pulse, can feel it throbbing under my finger and count the beats myself. D. H.

7 P.M., pulse, sitting, 97; standing, 116; very small; hardly perceptible. D. H.

9.30 P.M., pulse from 64 to 80, during three consecutive minutes; have not moved from my seat during the time. D. H.

500. 2 P.M., pulse 82 sitting; 108 standing. D. H.

Pulse varies greatly, but tends to go down as the moisture comes on. D. H.

Sometimes the pulse seems to draw out into a tail, which holds on almost to the next beat. D. H.

Upon rising, the pulse constantly accelerates until it loses a beat. D. H.

Pulse variable, 80 and above (3 P.M.). D. H.

505. Pulse begins strong and becomes weaker and weaker, until it can hardly be felt. D. H.

8.45 P.M., pulse, standing, 97; small, variable, and at times hardly perceptible; sitting, 72, round and full. D. H.

8.30 A.M., walk to the college slowly, and upon arriving feel my heart beat; pulse 123; return to my room, corner of Twentieth Street and Third Avenue, pulse 140; beats seem to run into each other. D. H.

9.15 A.M., pulse, standing, 102; sitting, 87. D. H.
10 A.M., walked slowly to the college, pulse 144.
510. 10.30, pulse 98. D. H.
11.30 A.M., pulse 82, and scarcely perceptible. D. H.
12.30 A.M., pulse, sitting, 84; standing, 92. D. H.
2 P.M., pulse 96, sitting; 104, standing. D. H.
Pulse, standing, 103 (5 to 6 P.M.). D. H.
515. 8.20 A.M., pulse 87, sitting; standing, 94. D. H.
10 A.M., pulse variable; walked out, and upon returning, pulse 120. D. H.
Pulse ran very fast for 10 or 20 beats, and then suddenly changed, and gave 2 or 3 full, long beats (6 A.M.). D. H.
Pulse 153, but soon goes down to 120; in one hour, 103 (after walking to upper lecture-room of college, in the morning). D. H.
10.30 A.M., pulse 103, and irregular. D. H.
520. Pulse runs up to 150, upon walking slowly up-stairs. D. H.
On rising, at 6 A.M., pulse 68; at 9 A.M., after walking a short distance, pulse 120. D. H.
Have been quiet in my room for three hours (2 P.M.); pulse 110. D. H.
9 A.M., pulse 120, and yet have been quiet in my room. D. H.
Pulse, in the night, 120. D. H.
525. Middle of forenoon, pulse 102. D. H.
In afternoon pulse 86 standing; 70 sitting. D. H.
10 A.M., pulse from 66 to 80, during three consecutive minutes. D. H.
Pulse, through the day, from 72 to 110. D. H.
Pulse from 50 to 57 (6.30 P.M.). E. E. C.[2]
Pulse 100, and over; exceedingly variable. E. E. C.[2]
530. Pulse very irregular; not at all alike during the first and last halves of a minute. C. L. K.
Pulse variable; first high, and then low; varies from 113 down to 90 in half an hour; very intermittent; at one time trembling and weak, then full and bounding. G. A. A.
Jerking of the pulse (in a few moments). E. S.
Pulse irregular. E. S.
535. Pulse irregular; 96 at 9.30 P.M. E. S.
Before taking drug at 10 A.M., pulse 76, and very weak. E. S.
Pulse 68 at 10.30 A.M., almost imperceptible. E. S.
Pulse 96, and quick, at 7 P.M. E. S.
Pulse 68 at 3 P.M.; very regular. E. S.
540. Pulse slow and almost imperceptible. E. S.

On taking medicine, pulse beats regular but very pronounced; at 12 M., pulse very slow, but each beat distinct. E. S.

Upon arriving at my room, after taking a walk, pulse runs together; can count it with difficulty; occasionally, a few full distinct beats. D. H.

Back and Neck.

Neck feels tired and as if hardly able to support the head. D. H.

Pain in back of neck, extending forward. E. E. C.[2]

545. Pain in back of neck, extending from the occiput. D. H.

Itching of the back of the neck and along the back. D. H.

Pain in lumbar region. E. E. C.[2]

Pain in the small of the back. E. E. C.[2]

Stitching pain in the right side, just below the liver, in the region of the kidney. E. E. C.[2]

550. Tensive pain under the scapulæ, especially on the left side; ameliorated when moving the arms or drawing the shoulders back. H. E. R.

More eruption on the back, and itching very persistent and severe. D. H.

Chill in back; soon after a moist, soft, light-brown stool, with much flatus. E. E. C.[2]

Chills along the back. E. E. C.[2]

3 P.M. Tearing pain in left axilla, extending into muscles of breast and arm. E. E. C.[1]

555. Pain in left axilla, extending down to biceps and into pectoralis muscle (5 to 6 P.M.). E. E. C.[2]

Dull, numbing pain in left axilla, extending down through the arm. E. E. C.[2]

Upper Extremities.

Pain in left shoulder, extending down the side, and some sharp stitches in the region of the heart. D. H.

Severe pain in left elbow, also in left shoulder. D. H.

Upon bending the arm pain extends from the shoulder to the hand. D. H.

560. Since taking this preparation have had a great deal of rheumatic pain in my shoulders toward morning, and especially upon getting cold. It becomes severe, and obliges me to move, which relieves the pain. (One year ago I had a similar trouble, which *Rhus* caused to disappear. I have not noted this before, because I thought it might not be from the proving.) D. H.

Numbness in right shoulder and arm. E. E. C.[1]

Rheumatic pain in shoulders, over spine of right scapula

particularly, of a sore, bruised feeling when moving the arm. E. S.

The gnawing and sticking pains around the heart extend to the region of elbow. 470. D. H.

Early in evening a sharp pain in superior angle of left scapula. E. S.

565. Rheumatic pains in shoulders; felt more particularly when quietly studying. E. S.

Tired, aching pain in shoulder after retiring at night. E. S.

Itching of left arm, commencing over the centre of the radius, aggravated by scratching. D. H.

During the evening the papillæ become red, elevated, and hot over a surface 2 by 3 inches on the left arm; they afterwards become more red, swollen, and irritable; also other smaller spots. D. H.

9 A.M. Right hand cold and pain through the arm; left hand warm; pulse 76, small and jerking. D. H.

570. The slight pressure from taking the pulse causes pain up arm and through hand repeatedly. D. H.

Feel pains through hands and arms, a peculiar stinging pain (have felt this often before, especially when noting the pulse). D. H.

Gnawing, stinging pains from the ends of the fingers, extending up the arms; more on the left. D. H.

While writing, the cold table causes severe pains in hands and arms. D. H.

Disagreeable odor under arms. E. S.

575. Twitching of the tendons on the ulnar side of the wrist. E. S.

Pains occasionally along the course of the radial artery. E. S.

Hands feel as if hot all through; burn, and feel uneasy. D. H.

10.30 A.M. Left hand cold and right hand burning; pulse 67. D. H.

Heat and sweating of the hands. D. H.

580. Carotids do not throb violently this morning, and yet can see very distinctly the pulsating of the arteries on the back of my right hand, and some of the time can feel the throbbing. D. H.

Itching in the hands, which seems deep in; great heat, and great aggravation from scratching or pinching the parts. (I believe this stinging feeling is in the coats of the arteries. This is a very persistent symptom.) D. H.

Pain in my hands, extending the whole length of the fingers (on both sides of each finger, internally and laterally), and following the course of the arteries; this is a stinging, burning pain.

Can't keep my hands still, and yet the slightest motion of them is followed by great aggravation. D. H.

Throbbing of the arteries upon the back of the right hand. D. H.

Itching runs along palmar arch upon writing, and down the fingers. D. H.

585. Hand seems unsteady. D. H.

Hands get very hot about 8 A.M. D. H.

Hands tremble. D. H.

Hands sweat every day at varying intervals. D. H.

Hands always dry on rising in the morning. D. H.

590. Hands cold, and yet perspire; feel flabby. D. H.

Slight itching of radial side of dorsum of hand. E. S.

Moisture of palms of hands (unusual). E. S.

Hands hot and dry. D. H.

Fingers get tired while writing, and ache. D. H.

595. Pain along radial side of index finger in evening. E. S.

Ends of fingers very hot and red. D. H.

Lower Extremities.

Pain extending from the hips up to the small of the back; also down to the feet. G. A. A.

Slight twinge in under surface of left thigh. E. S.

Feeling in the right thigh, in afternoon, as if the limb was going to drop off; tired, heavy feeling. E. S.

600. Pain in left leg, from the knee down; a diffuse pain. D. H.

Upon crossing the legs, feel the popliteal artery beat, so that it becomes necessary to change the position. D. H.

Pain in right knee. E. E. C.[1]

Tearing pain in right knee, extending up through the hip to the lumbar region (4 P.M.). E. E. C.[2]

Invariably have an aching, bruised feeling in right popliteal space, when walking in open air. E. S.

605. Papular eruption on thigh; hot, itching and burning. E. E. C.[2]

Itching of left leg, aggravated by scratching. D. H.

Stiffness in the cords of legs. G. A. A.

Numbness of the legs. E. E. C.[2]

Pain in whole length of legs, when walking. G. A. A.

610. Dull, aching pain in left leg, through its whole extent. H. E. R.

Aching in the right tibia. G. A. A.

On walking out, in the afternoon, tired, aching pain in right calf, extending up to the popliteal space. It passed off after

being seated awhile; on walking again, in evening, it came on again, with renewed force; and, on seating myself, felt a sore bruised pain in part affected, which did not pass off until I went to bed; also experienced on rising in the morning. E. S.

Pain around upper part of left leg, inner side. E. S.

Feet go to sleep. D. H.

615. Feet cold, but damp. D. H.

Feet perspire, but are cold (they are usually cold). D. H.

Pain in os calcis of left foot. D. H.

Sharp pains in feet, during entire day. E. S.

For some time past, have noticed a moisture on soles of feet (very unusual). E. S.

620. Heel blistered, and suppurated; excessively sensitive to touch, and on walking (not felt at any other time). E. S.

For the past few days, on walking, feeling in right little toe, as if a fine cord were cutting it through at the root of the nail. E. S.

Feet numb, and prickling pains through them; more especially the toes. D. H.

At 11 A.M., stool, with severe pain in rectum, extending down thighs and legs to heels. 383. D. H.

Generalities.

Did not feel as if I could get up in the morning, and afterwards felt languid to an excessive degree. D. H.

625. Weariness. D. H.

Limbs feel numb, upon remaining in one position a few minutes. (This symptom has occurred several times before.) D. H.

Hands and feet alternately hot and cold. D. H.

Pains all through the body; feel as if I had been sick a long time. D. H.

A slight pressure upon any bloodvessel occasions pain; even bending the arm to write, or feeling the pulse. D. H.

630. Rheumatic pains in the morning, waking me between 5 and 6; have to move for relief; after rising, this goes off, and head feels clear for awhile. D. H.

8.30 A.M. Walked slowly to the college and back to my room; am in a perspiration and heat; also feel exhausted. Suffocative feeling which seems to refer itself to the heart. D. H.

Can't sit still, as it starts stinging pains which seem to follow the course of such arteries as, on account of my position, are somewhat compressed. D. H.

Dull pains all through the body, but more especially up through the left side, from behind stomach to heart and shoul-

der; all increased by bending forward and compressing the abdomen. D. H.

Cannot sit still on account of the dull pain and peculiar uneasy feeling it occasions. D. H.

635. Restlessness of mind and body. D. H.

Have considerable pain along the course of the arteries. This starts up upon putting my hands into cold water, or upon bringing them in contact with anything cold. D. H.

Many pains, of an aching character, through the head and body. D. H.

Feel sore and bruised all through the body; have been bending forward for some time, writing. D. H.

Feel very tired, and have headache; from 10.30 A.M., till nearly 1 P.M., there is an aggravation; then less severe. D. H.

640. During afternoon, severe pain all through the body, upon sitting; and tired, aching pain, as if caused by weight of the body. D. H.

Feel exhausted after walking up-stairs. D. H.

During the evening, pain in the limbs, deep in, as if in the bones, forcing him to move them often. D. H.

Numbness throughout right arm and leg. E. E. C.[1]

Awoke in morning, very tired, and have a feeling of great lassitude, yet the mind is clear. E. E. C.[2]

645. Pains in the limbs; deep, aching pains; more in right hand and arm. D. H.

Weakness and dull pain in larger joints (elbows and knees) (7 P.M.). E. E. C.[2]

Sick, tired feeling, which I cannot describe. E. E. C.[2]

Some numbing pains in the axillæ and knees. E. E. C.[2]

Dragging pain in the joints; right knee, hip, and elbow, and left shoulder most affected. E. E. C.[2]

650. Gets better, and then gets worse again. E. E. C.[2]

From 5 to 6 P.M., a constant desire to yawn, and stretch the limbs. H. E. R.

Lassitude of body all day. H. E. R.

Feeling of lameness and uneasiness in the limbs; relieved by gentle motion. M. A. W.

Dull aching pain in legs and small of back. M. A. W.

655. Feels as if bruised all over; a slight blow occasions great soreness. G. A. A.

The symptoms noted were all many times repeated, and most of them persistent. G. A. A.

Muscular pains in shoulders and right calf, in evening; aggravated by movement. E. S.

For several nights past, get tired, and want to go to bed very

early (unusual). Feel unusually tired to-night, and yet have neither studied nor walked at all to-day. E. S.

Usually walk a great deal every day, but lately desire to ride wherever I go. E. S.

Streaking pains in hands and legs during entire day. E. S.

660. Feeling in the afternoon as if rubbed with rough flannel over body. E. S.

Skin.

Itching persistent (in the arm and leg). D. H.

Quite frequent itching along the back and lower extremities. D. H.

Itching of various parts of the body; especially of the left arm and alæ nasi. D. H.

General itching at 7 P.M.; also after retiring; aggravated by scratching. D. H.

665. Itching over all parts of the body, especially back, scalp, and eyes; scratching is followed by aggravation. D. H.

Papillæ sore and itch; after touching them they itch and smart; all aggravated by touch, and relieved by motion in open air. D. H.

A peculiar crawling feeling over various parts of the body. D. H.

Sore, red blotches, which do not fester, but itch, and induce scratching, which aggravates. D. H.

Red papillæ upon the face, which seems swollen, and also over the body. D. H.

670. Intense itching. D. H.

Red blotches, all very sore, itch, and burn; but none of them suppurate. D. H.

Upon sitting down by a warm fire, the itching is aggravated. D. H.

Itching of knees and elbows. D. H.

Itching upon the scalp, and upon the face at the root of the whiskers. E. E. C.[2]

675. Itching of right thigh, both arms and axillæ, scalp and left ear. E. E. C.[2]

Dreadful itching of the face at the roots of the whiskers; also of all parts of the body and limbs, especially of the hairy portions. E. E. C.[2]

Itching below scapula, on the inside of forearm, and on the thigh; all right side. E. E. C.[2]

A most unbearable itching upon the head and face, lasting about an hour, at 7 P.M.; also soon after retiring. E. E. C.[2]

Red, itching eruption along the back and on the limbs; in

fact, all over the body generally; several red flea-bite elevations together; scratching causes others to appear, until the surface is covered. They appear on the forehead and face (10 P.M.). E. E. C.[2]

680. Itching intense; skin abraded from scratching; face swollen; heat; no suppuration; aggravation after going to bed; restless, &c. E. E. C.[2]

Fleabite eruption, itching exceedingly. M. A. W.

Itching over the whole body. G. A. A.

Severe itching on the scalp; also on the upper lip. G. A. A.

After going to bed, itching and excessive burning of the limbs. D. H.

685. Itching not relieved by scratching; sometimes relieved for a moment, and is then followed by smarting and burning. G. A. A.

The itching of the pubis was so great that he feared pediculi, and removed the hair and searched for them. G. A. A.

Before taking the medicine, he was troubled by an itching after going to bed, which has now disappeared. W.

The skin of the arms and legs has a peculiar red appearance, and as if it would all break out into an eruption. D. H.

Some old swellings, which had nearly gone, seem to have a very little pus in them. D. H.

690. The eruption nearly heals and then breaks out again. E. E. C.

Tickling, crawling feeling in spots on the body. G. A. A.

Swelling in the back of the neck, the size of a hen's egg; and another on the left shoulder, just above the clavicle. (He suffered so much from these swellings that he was obliged to discontinue the proving; they appeared to be blind boils, and gradually disappeared, having no signs of suppuration. They, however, occasioned great inconvenience, and in order to continue his business he was obliged to secure a driver.) G. G.

Fever.

At 10 A.M. cold all over, especially the hands and feet. D. H.

695. Chills along the back. E. E. C.[2]

At times feel hot, and again feel cold. D. H.

After rising, feverish heat of head, with cold hands. E. S.

Feet cold; head and neck hot. D. H.

Constant feeling of heat. D. H.

700. Feeling of intense heat through the body; especially the head, neck, and hands. D. H.

Feel hot all through. D. H.

During afternoon restless, hot, and can't sit easy. D. H.

After retiring, great heat, burning, and restlessness, with itching; a feeling of uneasiness through the limbs and body with the heat, of which my chum complains. Even if my hands are cold before retiring, they get very hot and burn soon after; the parts that were the coldest burn the most; this has been so every night, without exception. D. H.

Hands covered with perspiration, from 3 P.M. until late in evening. D. H.

705. Profuse perspiration, from 3.30 P.M., until 5. D. H.

After going to bed very hot and restless, and soon a slight moisture over the body. D. H.

At 4 P.M., heat increases, and soon a perspiration over the body, but especially the hands, which feel uneasy all through. D. H.

At 4 P.M., aggravation comes on again; heat, with moist hands; back of neck and face burn; pressing out in the head; carotids throb; pulse 93; perspiration of the hands; no sense of chill; tongue and fauces scarlet; face, head, and neck burn; legs and feet cool, but itch; itching general; hands, although moist and cool to another, seem to burn all through. D. H.

710. Heat through the body, and especially through the hands, which at times are moist, and soon after dry; always moist with few exceptions, from 11 to 1 and from 4 to 6. Feet hot. D. H.

Sleep and Dreams.

Go to sleep while sitting up; and finally, upon retiring, have a headache come on, and feel restless; hot and itch. D. H.

Woke at 5 A.M., and could not get to sleep again. D. H.

Bed feels hard. D. H.

Woke at 5 A.M., after that mind active, and slept but little. D. H.

715. Restless all night; no sleep after 4 A.M. D. H.

Can't get to sleep for a long time, and wake often through the night. D. H.

Get very restless in mind and body between 3 and 4 A.M., and sleep no more. D. H.

Slept none during night. (Did not suppose he was excited; in fact, never was, to that degree before.) D. H.

Before entering on this proving, he could sleep at any time, and always went to sleep immediately after going to bed, sleeping as late in the morning as he would allow himself to; when I had a headache, it was always better before retiring; in fact, it was of such a kind as to induce sleep. D. H.

720. Lassitude and sleepiness; could hardly keep awake (4 P.M.). E. E. C.[2]

Extreme lassitude; sleepiness; yawning. (12 M.). E. E. C.[2]

After waking, not so wide awake as usual; wanted to go to sleep again and did. H. E. R.

Drowsy at 10 P.M. (unusual). E. S.

Get sleepy very early in the evening; can't study; if mind is diverted by conversation, wide awake. E. S.

725. Dream all night, waking frequently. D. H.

Restless through the night, and dreamed; all dreams terminated favorably or pleasantly. D. H.

After going to bed, dreamed continually. D. H.

After retiring, become restless; dream; am in trouble all night. D. H.

After getting to sleep, dreamed until waking at 5 A.M.; slept again, but not sound sleep. D. H.

730. Dream everything goes wrong. D. H.

Unpleasant dreams during last sleep. H. E. R.

Conditions.

All symptoms ameliorated by motion. D. H.

Aggravation of pains between 3 and 5 P.M. D. H.

Pains increased by going up-stairs (throbbing of heart, and pressure in the head). D. H.

735. All symptoms relieved by motion in the open air. D. H.

Worse between 10 and 11 A.M.; hands moist. D. H.

All these symptoms (nausea, weariness, heavy head, dull pains in region of heart, general depression of spirits, irritability, intense itching, perspiration and heat) are relieved by eating supper; at 7.30 P.M. they return again, and pressure in head is aggravated. D. H.

During afternoon, all symptoms are aggravated by mental work. D. H.

Symptoms grow worse immediately upon attempting to study, rendering it impossible to do so. D. H.

740. Pains, in general, disappear while walking, but upon arriving at my room, sit down, and tenesmus and other pains at once return. D. H.

Pains ameliorated by moving (and, I believe, would be by lying). D. H.

Coffee seems to relieve. D. H.

Pain around the heart, and heat of head, greatly aggravated by riding in the cars. D. H.

All symptoms ameliorated by eating. E. E. C.[2]

745. Throughout the proving there has been a daily aggravation from 3 to 4 P.M. E. C. C.[2]

All symptoms (so far) worse in the evening. H. E. R.

Mr. C. P., of New Haven, says that buckwheat-bran, fed to horses, will, without fail, kill the worms with which they are so often troubled. He has often used it for that purpose, and now resorts to nothing else. Cows fed upon buckwheat-bran give milk of an inferior quality. They also run down themselves, and soon become poor. (*Compare Introduction.*) D. H.

XL.

TWO PROVINGS AND A RÉSUMÉ OF CALCIUM SULPHATE.

By Clarence M. Conant, M.D.

These provings of Calcium sulphate, or Calcarea sulphuricum (sulphate of lime or calcium, old nomenclature), commonly called plaster of Paris, were made in the fall and winter of 1871–72, by the writer, while taking his first course of lectures at the New York Homœopathic Medical College. The potencies used were prepared by Dr. Fincke, the 30th being used in the first proving and the 200th in the second. In preparing the résumé, I have been struck by the frequent looseness and provoking generalization in the method of recording symptoms which is too often manifest, and must crave some slight indulgence on the plea of utter inexperience in proving, and ignorance of the great necessity of specific individualism of the symptoms of the drugs composing our Materia Medica. I simply submit, therefore, first, the day-book of the first proving (made with the 30th potency), preceded by a brief outline of the prover's physical status at the time of beginning the proving; second, the day-book of the second proving (made with the 200th potency); third, a résumé or pathogenesis of the drug compiled from the day-books of both provings, giving after each symptom the proving, in a Roman character, and the day of the proving as an exponent to the same.

DAY-BOOK OF PROVING I, 30TH POTENCY.

Condition of prover.—Slight tendency to diarrhœa.

Pimples on left cheek under beard; also one in left internal ear, which is tender.

Chronic intermitting frontal headache since August 1st, perhaps caused by great nervous excitement and want of rest.

Rarely sleep till after midnight, and wake very early in the morning.

Right gum, outer edge, back, sore.

Urine putrid in smell and deep in color.

Great desire for wine and alcoholic stimulants.

Last remedy taken, Nux vomica, July 27th, 1871.

1st day. Took drug 4.30, 5.30, 6.30, 7.40, 8.35, and 10.40 P.M.

August 14th. At 6.15 throbbing of heart as if about to burst into a sweat.

Pain in fourth toe, right foot, as if asleep, while lying down, with sweat.

Dull, throbbing pain in apex of left lung.

Tendency to influenza and sneezing, disappearing in the open air.

Numbness of hands, with sticky sensation.

Great desire for tea and claret, the latter unusual at night.

Perspiration throughout the evening.

Stool at 10.30 P.M., small, with smarting anus and darting pains in rectum, and sensation as if something was retained in it.

Sleepiness in afternoon, and nap from 6.30 to 7.40 P.M.

Wakefulness in evening.

Special good nature late in afternoon.

2d day. Took drug 6.30, 7.30, 9.15, 10.40, 11.40 A.M., and 12.55, 1.55, 2.55, 3.55, 4.55, 6, 7, 8, 9.05, and 10.05 P.M.

A.M. Weakness of middle of back.

Slightly soapy taste in mouth.

Wandering pains in stomach and abdomen.

Itching of back between the scapulæ.

Pressing pain in left eyeball.

Soreness in left ear increased.

Urine lighter in color and *not* offensive in smell.

Colic in stomach after breakfast.

Slight nausea.

Pressure on bowels as if to stool.

Uneasy feeling of genital organs.

Increased nausea and slight colic about noon.

P.M. Pain in apex of left lung.

Stool at 3.50, with cutting pain in abdomen.

Weariness of knees after walking, usually felt in calves of legs.

Evening. Increased nausea, as from tobacco, and painful consciousness of œsophagus from mouth to stomach.

Itching eruption on back between scapulæ, on breast about sternum, and somewhat on face.

Inflammation of eyes, most about 6, and less at 10 P.M.

Excessive appetite and thirst, and soreness of stomach externally.

Hilarious good humor always after taking drug, with eructations and sour taste.

Weakness in left side.

3d day. Took drug 7.40, 9.15, 10.15, 11.15 A.M., and 12.30, 1.30, 2.45, 3.45, 5, 6.45, 7.45, 8.45, 9.50, 10.50, and 12 P.M.

A.M. Slight nausea.

Burning itching in top of wing of left ear.

Slightly puckered sensation at base of tongue.

Neuralgic pains in shoulder extending to wrist and back of hand.

P.M. Sour, bitter taste.

Evening. Cutting pain in left eyeball, with some soreness.

Pain and soreness at stomach.

Stool at 11.40, scanty, of light color, with pain at stomach, followed by soreness of anus.

Sour, acid taste always after taking drug.

4th day. Took drug 8, 9.15, 10.30 A.M., and 12.15, 1.15, and 2.15 P.M.

No symptoms.

5th day. Hunger decreases; marked desire for green, acid fruits and vegetables.

A.M. Slight inflammation of eyes.

No stool.

P.M. Excessive gayety about 2 P.M.

Evening. Desire for night air, but weariness while in it.

Pain in right side of pelvis, followed by weariness, nausea, and pain in stomach.

Slight fever, with cold sweat.

6th day. Profuse expectoration of transparent, tasteless, slightly viscid mucus all day; less after nightfall.

A.M. Pimples on face increased in number and soreness.

Hunger less, but marked desire for fruit as before.

Strong desire to be in open air, and feel better there.

A.M. Stool half normal (except being light color), and second half loose and nearly black.

P.M. Backs of hands inflamed, as if sunburned.

Evening. Extreme lassitude, feeling as if going to be sick, with slight fever, no perspiration.

Second stool, at 10 P.M., scanty, loose, black, and undigested, preceded by pricking colic in the abdomen.

7th day. Pimples appear on scalp.

No stool.

Soreness of gum disappears.

8th day. Scanty expectoration of transparent frothy mucus.

Pimples on scalp more painful.

Urine very pale, and micturition slightly painful.

9th day. Urine normal.

No symptoms.

10th day. Indigestion twenty minutes after breakfast.

Indigestion an hour after tea.

Flatulence two and a half hours after tea.

Neuralgic pains in left side of head and forehead, an hour after tea; soon passed.

Colic after ice-water, soon passed; *very* unusual.

11th day. Neuralgic pains in right upper jaw, proceeding from a decayed molar tooth; inside of gum swollen and sore; great aggravation by gently stroking the gum.

Pimples on scalp disappear and leave a yellow scab.

Very scanty expectoration of transparent, slightly viscid mucus.

No stool.

12th day. Neuralgia better; gum still sore.

Exquisite soreness of left forefinger under nail.

Pimple appears on top of right ear.

No stool; flatulence in afternoon.

Sour, bitter eructations at night.

13*th day.* Neuralgia and gum soreness gone!

Left forefinger well!

No stool. No symptoms.

14*th day.* Scanty expectoration of transparent stringy mucus in the morning.

Severe indigestion soon after breakfast.

Stool at night, hard, of great bulk and large pieces, passed with great pain, leaving smarting soreness of the anus.

15*th day.* Excessive weariness and sleepiness between 10 and 12 A.M.

No stool.

16*th day.* Slight indigestion after dinner, at 2.30 P.M.

No stool.

17*th day.* Indigestion after breakfast.

Inflammation of eyes at night.

Stool at night, large, hard pieces; tenesmus at close of stool; convulsive shuddering during passage, which leaves smarting burning in the anus.

18*th day.* Inflammation of eyes at night.

No stool.

19*th day.* Bruised right thumb under nail; applied Arnica tincture; pain and lameness from thumb into elbow.

A.M. Slight expectoration of transparent stringy mucus.

P.M. A single burst of putrid flatus in the afternoon, an hour after dinner.

Evening. Hard stool at night; large pieces, leaving sensation in the rectum of more egesta to be expelled; and slight burning in the anus.

Darting colic in abdomen, late at night, before retiring.

20*th day.* Marked thirst in A.M.

P.M. General low-spiritedness, especially in the afternoon and evening.

Evening. Stool at night, followed by soreness and dull pain at the pit of the stomach.

Colic at night, as yesterday, at 11.30 P.M.

21*st day.* No stool.

A.M. Sensation of dust in larynx, about 11.30 A.M., with soreness increasing all day and evening.

Frequent expectoration of small quantities of transparent mucus.

Three (3) small yellow blister-like sores, which burn and smart when touched, on right side of lower lip.

Hoarseness, with sore tight cough in evening.

22d day. Throat red and sore internally.

Tongue yellow-coated at base.

Sharp, short, dry cough.

All symptoms relieved about 11 A.M., by accidentally smelling *camphor*, and better all day than before since I began the proving.

Stool at night, very light-colored.

23d day. Throat better.

Cough, same character, but worse; leaving a strained sensation in lungs, and slightly rasped feeling in throat; seems to arise from itching of throat.

Slight hoarseness.

Sore on lips better, but ulcer-like.

Scanty expectoration of transparent slightly viscid mucus from the throat.

No stool.

No appetite for meat.

24th day. Throat well.

Tight, short, rasping cough, leaving a strained sensation in head and chest.

Slight hoarseness.

Sore on lip tender, and discharges bloody matter.

Stool (11 A.M.) very light color, followed by vague darting pains in region of external pubic arch.

Profuse expectoration of yellowish slightly viscid mucus from throat and posterior nares.

Appetite good.

25th day. Suffered from cold while taking usual bath.

Sharp colic in abdomen on rising.

Cough of same character as yesterday, but less frequent.

Slight hoarseness.

Sore on lip the same.

Slight frontal headache.

No stool.

Scanty expectoration of mucus, transparent early in the day, yellowish from about 12 to 3 P.M.; transparent again toward night, from throat and nares; thin transparent mucous discharge from left nostril, and slight lachrymation of left eye.

26th day. Cough same character as before, but very rare.

Hoarseness increased.

Sore on lip tender, and gives rise to a binding, drawing, sensation on lip, extending obliquely downward toward the right corner of the chin.

Expectoration as yesterday, but more profuse; discharge from left nostril is yellow, as it is also *at times* from the throat; eye less affected.

Slight frontal headache.

No stool.

27th day. Cough nearly gone, and less racking.

Less hoarseness.

Sore on lip better (slightly).

Profuse expectoration of yellowish mucus from throat and right posterior nares.

Throat longitudinally inflamed in strips, like ulceration.

Tongue seamed with a deep red line in its centre, antero-posteriorly.

Stool in A.M.

Slight frontal headache.

Excessive gayety of spirits in the afternoon.

28th day. No cough; no hoarseness.

Sore on lip much better, with a hard dry scab.

Since 24th day, wipe blood from concha of left ear, in morning after usual bath.

Scanty expectoration, same character as yesterday.

Dry coryza left nostril in A.M.; right nostril discharges white watery mucus in small quantities; at night this is reversed, left nostril discharges, and right nostril is dry.

Two stools, both small and undigested; one in A.M. and one about 1.50 P.M.

29th day. A few tight coughs on rising.

Sore on lip nearly well.

Profuse expectoration of transparent sticky mucus from throat and posterior nares.

Right and left nostrils alternately open and stopped with transparent watery sticky mucus.

No blood from ear.

Dull vague pains and external soreness in stomach at night, about 10 P.M.

Slight frontal headache.

Ravenous appetite.

Stool in P.M.

30th day. Cough once or twice on rising.

Sore on lip has new skin.

Very scanty expectoration and alternate stoppage of the nostrils, as yesterday.

Slight frontal headache, with some fever but no sweat.

Ravenous appetite.

Profuse stool in A.M., large pieces, and the latter part loose and blackish; looseness of bowels during stool, and of stomach all day.

Very weary and stupid all day; could easily fall asleep, although not in want of rest.

Better (generally) at night and in the open air.

31st day. Cough as yesterday.

Expectoration and influenza as yesterday, but less marked.

Slight frontal headache, passing to temporal region in evening.

Sore on inside left corner of mouth, and one inside upper lip, just to right of centre; better toward night.

Marked hoarseness toward night and in evening.

Indigestion after breakfast.

Feet slightly swollen and tender.

Ravenous appetite.

No stool.

32d day. Cough in morning after bath.

Profuse slimy adhesive expectoration, and influenza as yesterday.

Loose, lumpy, blackish-brown stool in A.M., leaving some sore feeling in stomach and abdomen.

Stomach externally sore.

Lip-sores better.

Pimple on right ear (*see* 12*th day*) is disappearing.

Slight inflammation of the eyes.

Hard, tender swellings on scalp, in edge of hair.

Severe indigestion after breakfast.

Feet worse.

33*d day*. Cough three or four times in A.M. after bath.

Scanty expectoration and influenza as yesterday (same character), but latter better; mucus detached from throat and posterior nares with great difficulty.

Indigestion during breakfast relieved by hot cocoa.

Slow fever and slight inflammation of the eyes.

Slight frontal headache.

Pimple on ear nearly gone; lip and scalp sores apparently gone.

No stool.

34*th day*. No cough.

Scanty expectoration (less than yesterday); little or no influenza.

Headache and inflammation of eyes.

Indigestion after breakfast and dinner.

Small, hard stool in P.M., with cutting pain in the abdomen during stool.

35*th day*. Two or three coughs before bath in A.M. on rising.

Severe frontal headache, worst in A.M.

Expectoration and influenza as yesterday, but less.

No stool.

36*th day*. Expectoration in A.M. on rising; influenza scarcely noticeable.

Stool in A.M., hard, dark-brown, with burning in and during and after stool.

No cough.

37*th day*. Expectoration and influenza only noticeable in A.M. for about two hours after rising, and a little in evening.

Painful rigidity of muscles of shoulder and back; noticed when putting on or off a coat.

Many little matterless pimples under beard and hair, which discharge blood when scratched.

Sore on external lower lip, just to right of centre.

No stool.

38*th day*. Expectoration as yesterday, but *less;* no more influenza than is usual to me in health.

Hard, dark stool in A.M., leaving smarting in ano, and sensation in rectum of more egesta to be expelled.

Rigidity of back and shoulders less marked.

Pimples under beard discharge an oily transparent matter.

Sore on lip better.

Severe indigestion after breakfast.

Severe attack of incarcerated flatus after dinner, distending abdomen and causing colic; somewhat relieved by walking and singing; distension and consequent discomfort continued during P.M. and evening.

39*th day*. *Very* scanty expectoration (less than yesterday).

Very *cold* in A.M. before breakfast.

Sore on lip raw.

Pimples under beard same as yesterday.

Rigidity passes into right and both hands, disappearing in P.M.

Loose stool at night.

40*th day*. No noticeable expectoration.

No stool.

Pimples under beard very tender.

Sore on lip scabbed.

Fingers very stiff and painfully rigid; dreamed of trying to catch and then hold an eel, and was unable, because of stiffness of fingers.

41*st day*. Pimples under beard itch, and discharge blood when scratched.

Fingers better, but shoulders and arms rigid and painful to touch; it is painful to put off or on a coat; worse in A.M. and evening, better in open air and walking; darting pain from elbow to wrist, diagonally across the arm.

Stool in P.M., with slight colic in abdomen.

42*d day*. Pimples and lip-sore the same.

Shoulders, back (over scapulæ), and forearms very stiff; can't

move them without great discomfort, almost pain; worse in A.M., better walking.

Stool in P.M., with slight colic in abdomen.

Slight inflammation and smarting of the eyes at night.

43*d day.* No stool.

Pimples and lip-sore better.

Rigidity better; legs (most left) slightly affected in evening.

Darting pain in vertex in P.M. after dinner.

44*th day.* Stool in A.M. with excoriating sensation at anus.

Pimples and lip-sore have dry yellow scabs and itch.

Rigidity nearly gone; slightly in legs, back, and fingers, which are tender to the touch.

Earache in left ear in A.M. relieved by taking a lump of dark-brown wax from ear.

45*th day.* No stool.

Pimples and lip-sore better.

Rigidity scarce noticeable.

Drawing sensation in spermatic cord and left testicle in A.M.; the same again from 5 to 6 P.M, with absolutely irresistible amorous fancies and desires, both pure and impure.

46*th day.* Pimples and lip-sore better.

No rigidity.

Drawing sensation for a few moments in left testicle in A.M., but no moral symptoms.

Sharp pain (a half hour or so) in right thumb, extending to wrist.

Stool in P.M. one short, thick piece, with great tenesmus.

47*th day.* Fingers puffy and stiff in A.M.

Sensation of weight in stomach and chest in A.M. relieved by dinner.

Colic in abdomen on rising.

Flatulence and eructations after bath.

Pain in right thumb and wrist late in P.M.

Rheumatic pain in left side of neck.

Stool in P.M.

48*th day.* Flatulence and eructations in A.M. after bath.

Colic in abdomen on rising.

Pimples itch.

Got a whiff of camphor in A.M. (accidentally).

Scanty expectoration of white mucus from the throat.

Severe inflammation of eyes, worse in the corners of the eyes, and in evening.

Great depression of spirits.

Rather loose stool in P.M.

49th day. Pimples better.

Expectoration scanty, and mostly in evening.

Slight influenza, usually early in A.M.

Inflammation of eyes as yesterday, but better.

Rather loose stool in P.M.

Excessive, bitter melancholy, with distressing apprehensions of evil to loved ones.

50th day. Bitter eructations in A.M. after bath.

Oct. 2d. No stool.

No other symptom.

Began new proving by taking the drug (2^c) at 12 o'clock, noon.

DAY-BOOK OF PROVING II, 200TH POTENCY.

1st day, Oct. 2d. Took drug 12.10, 1.10, 2.20, 3.30, 4.30, 5.40, 7, 8, 10^{10}, and 11.10 P.M.

General lassitude from about 2 P.M.

Nap about 4 P.M., with sweat.

Sharp darting pain in left shoulder about 6.45 P.M.

Sharp pain in ulna at wrist several times during evening.

Pulsations or throbbings of heat as if about to burst into a sweat in P.M. and evening.

No stool.

2d day. Took drug at 6.40, 7.40, 8.50, 10, and 11 A.M.; at 12.10, 1.20, 2.20, 4, 5.10, 6.20, 7.40, 8.45, 9.45, 10.45, and 11.45 P.M.

General lassitude till toward evening, when livelier.

Small of back weak; only noticed when lying on back; but great disposition to lie down and stretch out.

Better (generally) after breakfast, dinner, and tea.

Vague cramps in stomach in P.M.

Feel well and lively in evening.

Pinched appearance about nose in A.M.

Ravenous appetite.

Pimples on face (37th day, Proving I) itch.

Rather loose dark stool in P.M.

Pimple on right arm sore and apparently mature.

Slight nausea in evening after the drug.

Cramps in hypochondria from about 10 A.M., all day, disappearing late in P.M.

3d day. Took drug at 7 and 8 A.M.

Scanty expectoration from posterior nares in A.M., with a few tight coughs.

Pimple on right arm is inflamed, hard, and sensitive, deep into flesh; has a small black depressed head which may be forced to the surface by gentle pressure; feels like a vaccine pustule (to prover), and appears as if about to exude matter when gently pressed.

Slight influenza in evening.

Painful rigidity of right side of neck in P.M., the same in back of neck later.

Frontal headache late in P.M., worse on right side.

Painful rigidity of thumb of left hand, and puffiness of fingers, in P.M.; mainly fingers of right hand.

Less appetite and no stool.

Poorly in A.M. (better than yesterday though), and lively in evening.

4th day. Quarrelsome.

Feel pretty well, but weary in A.M.

Took nap in P.M., after which feel worse, having frontal headache and some influenza.

Cramps or colic in hypochondria at night after retiring.

Considerable putrid-smelling flatus.

Feel better in evening in air, but poorly again returning to house.

Scanty expectoration from posterior nares mostly in P.M., and evening.

Hard, small, dark stool in A.M., with tenesmus.

Cramps in hypochondria, with great restlessness after retiring at night.

5th day. Weakness of back, stiffness of hands, and puffiness of fingers in A.M.; joint of second finger, left hand (between second and third row of phalanges) swollen, and very sensitive to lateral pressure.

Small dark stool in A.M.

Growing painful rigidity of arms, shoulders, and back, from A.M., to late in P.M., not noticeable in evening.

Flushes or pulsations of heat during dinner; no sweat.

Bruised pain in testes late in P.M., as if they had been crushed or injured.

Cramps in hypochondria on retiring (less than yesterday, however).

Expectoration in A.M. after bath.

Pimple on arm much better; those on face itch.

6th day. Colic in A.M. on rising.

Frontal headache.

Soreness of left side of roof of mouth at dinner as if burned; better at tea.

Stool in P.M. preceded by pain in left side of chest and abdomen.

Hands and fingers better.

Pimple on arm nearly gone.

Very scanty expectoration all day.

Good spirits; feel pretty well day and evening.

7th day. Colic in lower part of abdomen in A.M. after bath.

Pressure on bowels as if to stool, and constriction of the anus after breakfast.

Heat in forehead and eyes (no sweat), with painful consciousness of testes; soon passed.

Colic in abdomen and aching weakness of back while riding; soon passed; same later also in P.M.

Small stool in P.M., with marked tenesmus.

Great restlessness in P.M. and evening, with sadness, dislike to talk; petulant; desire to weep, and to be miserable, alone, and unhappy. Moderately cheerful in A.M.; change not sudden, but between 2 and 3 P.M.

Took nap in P.M., and awoke perfectly miserable; feel weak and languid; no pluck, but suffer an intolerable lassitude.

Very scanty (more than yesterday) expectoration all day.

Mouth better.

8th day. Small dark stool in P.M.

Pain in left hypochondrium in P.M., followed by dull pain or cramp in stomach.

Voluptuous, burning, aching sensation in the exterior pubic arch late in P.M.

Slightly hoarse in evening.

Very scanty expectoration, mostly in A.M., after bath.

Lazy. Tolerable spirits.

9th day. Profuse expectoration and eructations in A.M.

Scanty expectoration during day, and slight increase in evening.

Colic in abdomen in A.M., after bath.

Take dark-brown wax from right ear in A.M.

Severe frontal headache.

Great heat and sweat during P.M. and evening.

Hard swollen pimple on left cheek.

Second finger left hand still tender, but better (see 5th day).

Severe indigestion after breakfast.

Good spirits; best about 6 P.M.

10th day. Shoulders stiff in A.M.

Small stool in A.M., with excoriating sensation.

11th day. General painful rigidity, especially in legs, in A.M.; hands and shoulders involved in P.M., especially the right hand.

Scanty expectoration.

Great restlessness and sadness in evening.

Pain in hands late in evening.

No stool.

12th day. Some rigidity in legs, shoulders, arms, and hands, and in feet in evening, especially right foot.

Backache (in dorsal region), in P.M., and in evening after retiring, causing great discomfort and restlessness.

Excessive melancholy all day, but easily diverted.

Scanty expectoration from the throat.

Scanty, hard, dark stool in evening (a single large piece).

13th day. Some expectoration.

Severe indigestion after breakfast.

Severe frontal headache after dinner.

Cramps in hypochondria late in evening.

Stool in evening.

Desperate melancholy in evening.

14*th day*. Took dark-brown wax from right ear in A.M.

Painful rigidity of thighs in A.M.; worse in P.M., and worst early in the evening.

Dark, profuse, painless stool in evening, with tenesmus.

Expectoration most in evening, when left nostril is stopped.

Cramps in hypochondria late in evening.

Inclined to brooding, gloomy melancholy; easily aroused to take part in conversation, &c., but never cheerful.

15*th day*. No stool.

Darting pains in hands when holding anything.

Legs somewhat stiff.

Cramps in hypochondria in evening.

Expectoration from posterior nares.

More cheerful.

16*th day*. No stool.

Increased sweat of hands.

Darting, neuralgic pains in right side of face.

Expectoration from posterior nares.

Very restless and unhappy; melancholy easily diverted, but instantly relapse; worse in evening; better about noon.

Pimples on face gone (37th day, proving 1).

17*th day*. Right upper back teeth decayed. Molar very sensitive to cold air, water, &c., and tender.

Vague shooting pains in hands; worse toward night.

Stool in P.M., with great tenesmus.

Expectoration as yesterday.

Spirits better.

18*th day*. Tooth better, but still sensitive.

Pains in hands as yesterday.

Expectoration as yesterday.

Stool in evening, with excoriating sensation at anus, and shooting colic in left inguinal region.

Conjunctivæ of eyes yellow.

Spirits only moderately cheerful.

19*th day*. Legs stiff, and fingers puffy and stiff in A.M.

No stool.

Tooth much better.

Tolerable spirits; best in evening.

20*th day*. Pharynx very red and sore.

No stool; no noticeable stiffness.

Good spirits, but a dazed state of mind in evening.

Chest lame and raw behind sternum, with nausea in A.M., reaching a climax about 1.30 P.M. in a small, close, crowded room, witnessing an operation, then deadly nausea and vertigo; could hardly get into the street, where in about fifteen minutes felt much better.

21*st day*. Throat much better.

Indigestion after breakfast, and forty minutes ride in city cars, followed by diarrhœic stool, with great tenesmus and pain in abdomen, leaving a hot feeling of anus and bowels.

Hands somewhat rigid in P.M., especially right hand.

Good spirits, but inclined to solitude.

Profuse, more viscid expectoration, with slight tendency to influenza.

Cramps in abdomen and flatulence at night.

22*d day*. Light, rare cough.

Right nostrils stopped (mostly posteriorly), day and evening.

Sensation of great heat in face and eyes, but parts are really normally cool; relieved in open air, for which I have great desire.

General lassitude.

No stool.

Profuse expectoration; easily expelled as yesterday.

Sensation of constriction at anus.

Distressing uneasiness (*barely pains*), in hands.

23*d day*. Watery coryza from anterior nares; posterior nares closed tight.

Painful cramps in right hand, and stiffness and numbness of little finger in P.M.

Spasmodic throbbing headache, mostly in right frontal region, in A.M.

Hoarseness; less in open air and in evening.

No stool.

Oppression and rawness of chest.

24th day. Profuse light-colored stool in A.M. on rising, with tenesmus and excoriating sensation in anus, preceded by cutting colic in the epigastrium.

Some expectoration and coryza; posterior nares not so tightly closed; coryza yellowish or greenish.

Right upper back teeth decayed; molar very tender.

Colic in epigastrium in P.M.

Very irritable late in P.M., less so in evening.

25th day. Some influenza as before, but better.

No stool.

Severe frontal headache in evening.

General condition better till evening.

26th day. Little influenza, except on rising in A.M.

No stool.

27th day. Little influenza and almost no expectoration.

Ball of left foot, opposite fourth toe, suddenly becomes tender while walking, and continues so all day.

Stool in P.M., preceded by single brief spasm of sharp, cutting colic in abdomen, with excoriating, burning, and stinging sensations at anus during stool, and soreness of the same after stool.

28th day. Very little expectoration but considerable influenza, disappearing in open air, and worse in the right nostril.

Stool in evening, preceded by a single spasm of cutting colic in the stomach, with tenesmus.

Vague pains in left foot as if rheumatism would set in.

Very restless and unhappy in P.M.

29th day. Expectoration and influenza *not* markedly better in open air.

No stool.

Very restless and low-spirited in evening.

30th day. Expectoration and influenza only in the house; relieved in cold or open air.

Small easy stool in evening.

Low spirits in evening.

31st day. Expectoration in open air, influenza in house.

Small easy stool in evening.

Good spirits.

32*d day*. Profuse yellowish expectoration from posterior nares; and influenza as yesterday.

Small slowly passed stool with slight tenesmus.

Frontal headache in A.M., and evening.

Good spirits.

33*d day*. Expectoration and influenza as yesterday.

Right little finger numb and stiff for awhile in A.M.

Retained or suppressed urine, from 6 P.M. yesterday, to 2 P.M. to-day; no pain or unpleasant sensation; urine when voided (about a teacupful) of a very pale color.

No stool.

Good spirits.

34*th day*. Loose, pappy, light-brown, painless stool in A.M.

Vague rheumatic pains in right scapular region in P.M.

Slight inflammation of the eyes.

Expectoration and influenza as yesterday.

35*th day*. Indigestion in A.M., after breakfast, followed by pressure on bowels as if to diarrhœic stool.

Vague pains in right arm, hand and wrist, in evening.

Feet very tender.

Considerable inflammation of the eyes.

Expectoration and influenza as before.

Vague pains in right side of face; and right upper back decayed molar, which is somewhat tender.

36*th day*. Very little coryza and expectoration.

Great melancholy late in P.M., and in evening.

No stool.

37*th day*. Pappy, excoriating stool late in evening.

Still less coryza and expectoration.

Spirits hardly cheerful, but better than yesterday.

38*th day*. No perceptible coryza, and a *little* greenish-yellow expectoration.

Eyes smart in P.M., and evening.

39*th day*. Very little blood-streaked mucus from left nostril after bath.

Spirits good.

No stool.

40th day. Slight expectoration.

Blood-streaked mucus from left nostril as yesterday.

Hard stool passed with great urging in the rectum, and excoriating sensation at the anus; preceded by sharp pains in the rectum.

Severe, dull, superficial pain or weight in the left side of the chest at the lower end of the gladiolus.

41st day. Very little expectoration.

A small boil just over left eye, and a second small boil on forehead, far above left eye, nearly in hair.

Very small, hard, but painless stool at night.

42d day. Watery coryza in open air, slightly excoriating.

Boil over left eye worse, other boil better.

Small stool (a single piece), with darting colic in the lower part of the abdomen, leaving constricted sensation and great soreness in anus.

Very little expectoration.

All stools dry and hard.

43d day. Coryza and expectoration as yesterday.

No stool.

Boils better.

44th day. Less coryza and increased expectoration.

Loose stool in evening, with sharp cutting colic in lower part of abdomen; two spasms of this colic.

Very gloomy and low-spirited.

Boils better.

45th day. General languor; feel absolutely indefinitely unwell all over.

Low spirits, but more cheerful than yesterday.

Very little coryza and expectoration.

No stool.

46th day. Always blow yellowish or greenish mucus from nose in A.M., after bath.

Excoriating coryza in open air, soon disappearing in the house and after washing face in cold water.

No stool.

Right upper back decayed molar very sensitive to cold air, water, &c.

Boils gone.

Eyelids smart, especially in inner corners, and in A.M.

47*th day*. No stool.

Coryza as yesterday, but better.

Faceache all night, on right side.

Suddenly, after lunch, lose all memory and power of thought, can scarcely remember what I was going to do; old issues, which have long been decided, are presented to mind, and I can't recall my decision.

Excessive grieved melancholy in P.M., and evening.

Tooth better.

48*th day*. No stool.

Little coryza.

Restless and weary.

Frontal headache.

49*th day*. Tooth seems to cause neuralgic faceache in both jaws of right side, mostly in evening.

Considerable coryza, especially in evening.

When at bath in A.M., for three or four days past, notice lameness of inner side of left knee.

Severe colic in stomach, in evening, relieved (*pro tem.*) by drinking cold water, with a sensation of constriction in stomach, followed by stool with some colic; after stool much flatulence and eructations.

See only half an object late in evening.

50*th day*. No stool.

Coryza as yesterday, and some lumpy white expectoration in evening.

Tooth and right side of face very sensitive to anything cold.

Rather gloomy and moody in evening, and very weary.

Generally better after eating.

51*st day*. Stool in P.M., leaving slight soreness in the anus.

Expectoration and watery coryza more profuse.

Tooth sensitive as before.

Knee still lame at bath.

52*d day*. Expectoration as yesterday, coryza more profuse.

Toothache immediately aggravated by cold water, but at last relieved by it.

Middle finger of left hand stiff and puffy in P.M.; some pain in metacarpal bone and phalanx of the same finger.

No stool.

Toothache better in P.M. and evening.

53d day. Expectoration and coryza the same.

Tooth aches at night in sleep.

No stool.

54th day. Expectoration as before; rather more coryza.

Toothache and tenderness worse.

No stool.

Took Ant. crud. 2 c. at night.

55th day. Little expectoration and some coryza, mostly from right nostril.

Stool in A.M.

Stiff and weary all over, especially in the posterior part of left knee.

Severe frontal headache, worse after dinner and in evening.

Gums bleed easily while brushing them.

Toothache just after dark.

56th day. Stool in P.M.

Toothache and stiffness better.

Expectoration and coryza as yesterday.

Very low-spirited in early evening, then more cheerful, then "blue" again.

Blow blood-streaked mucus from nose in A.M., after bath.

57th day. Stool in evening; sphincter feels lame, strained soreness.

More expectoration and coryza, especially from right nostril.

Inner posterior part of left knee very lame when stooping or walking fast.

Edges of nostrils slightly sore, as if excoriated.

Blow blood-streaked mucus from nose as before.

58th day. Less expectoration and coryza.

Knee still lame.

Stool in P.M.

59th day. Very little expectoration and coryza.

No stool.

60th day. No expectoration, and little coryza.

Knee seems well.

Stool in P.M. before dinner, leaving a sensation as of more egesta to be evacuated; a second stool in evening, before tea, leaving soreness of the anus.

61*st day*. No coryza nor expectoration, no stool, no symptoms.

RÉSUMÉ.

Morale.—Special good nature late in P.M. (I[1].)

Hilarious good humor always soon after taking the drug; with eructations and sour taste in mouth. (I[2].)

Excessive gayety about 2 P.M. (I[5 27].)

General low-spiritedness, especially in P.M. and evening. (I[20 48].)

Excessive, bitter melancholy, with distressing apprehensions of evil to loved ones. (I[49].)

Feel well and lively in evening. (II[2 3].)

Quarrelsome. (II[4].)

Good spirits; feel pretty well day and evening. (II[6 32 33 39].)

Sadness, dislike to talk in P.M. and evening; petulant, desire to weep, and be left alone to be miserable and unhappy in P.M. and evening; *although* moderately cheerful in A.M., the change being gradual. (II[7].)

Lazy. (II[8].)

Spirits best about 6 P.M. (II[7 11 29 30].)

Excessive melancholy all day, but easily diverted. (II[12].)

Desperate melancholy in evening. (II[13].)

Brooding, gloomy melancholy; easily aroused to take part in conversation, &c., but never cheerful. (II[14].)

Melancholy; easily diverted, but instantly relapse; worse in evening, better about noon. (II[16].)

Good spirits, but inclined to solitude. (II[21].)

Very irritable in latter part of P.M.; less so in evening. (II[24].)

Very restless and unhappy in P.M. (II[28].)

Great melancholy in latter part of P.M., and in evening. (II[36].)

Very gloomy and low-spirited. (II[44].)

Excessive, *grieved* melancholy in P.M. and evening. (II[47].)

Gloomy and moody in evening. (II[50].)

Very low-spirited early in evening; better a little later, and then again very "blue" later yet in evening. (II[56].)

Sensorium.—Vertigo with deadly nausea, relieved by going into the open air. (II[20].)

Good spirits, with a dazed state of mind in evening. (II[20].)

Suddenly after lunch (about 1.30 P.M.) lose memory and power of thought; can scarcely remember what I was going to do; old

(personal) issues, which have long been decided, are again presented to mind, and I can't recall my decision. (II[47].)

Head.—Painful pimples on scalp (I[7]), which disappear and leave a yellow scab. (I[11].)

Neuralgic pains in left side of head and forehead an hour after tea; soon passed. (I[10].)

Frontal headache. (I[25 26 27 29 30 33]; II[6 9 48].)

Slight frontal headache passing to temporal region in evening. (I[31].)

Hard, tender swellings on scalp in edge of hair. (I[32].)

Headache and inflammation of the eyes. (I[34].)

Severe frontal headache worse in A.M. (I[35]; II[32].)

Many little matterless pimples under the hair (and beard), which discharge blood when scratched. (I[37 41].)

Darting pain in vertex in P.M. after dinner. (I[43].)

Frontal headache late in P.M. worse on right side. (II[3].)

Frontal headache late in P.M. after siesta. (II[4].)

Heat in forehead and eyes, with painful consciousness of testes. (II[7].)

Severe frontal headache after dinner. (II[13 55].)

Spasmodic throbbing headache, mostly in right frontal region, in A.M. (II[23].)

Severe frontal headache in evening. (II[25 32 55].)

Severe frontal headache in A.M. and in evening. (II[32].)

Severe frontal headache, worse after dinner and in the evening. (II[55].)

Eyes.—Inflammation of eyes, worse about 6 P.M., and better about 10 P.M. (I[2].)

Cutting pain in left eye, with some soreness, in evening. (I[3].)

Slight inflammation of eyes. (I[5 32]; II[34 35].)

Slight inflammation of eyes at night. (I[17 18 42].)

Lachrymation of left eye with left-sided influenza. (I[25].)

Slight inflammation of eyes with a slow general fever. (I[33].)

Severe inflammation of the eyes, worse in the canthi and in evening. (I[48 49].)

Heat in the eyes. (See *Head* and *Genitals.*) (II[7].)

Sensation of heat in face and eyes, but the parts are normally cool. (II[22].)

Eyelids smart, especially inner corners, and in A.M. (II[46].)

Pressing pain on left eyeball. (I[2].)

Conjunctiva yellow. (II[18].)

See only half an object late in P.M. (11[49].)

Ears. Soreness of pimple in left ear increased. (I[1].)

Burning, itching on top of wing of left ear. (I[3].)

Pimple on top of right ear remaining twenty days. (I[12 to 32].)

Wipe blood from concha of left ear in A.M. after bath for four mornings. (I^{28}.)

Pain in left ear in A.M., relieved by taking a lump of dark-brown wax from it. (I^{44}.)

Take dark-brown wax from right ear in A.M. ($II^{9\,14}$.)

Nose.—Influenza and sneezing, which disappears in open air. (I^{1}.)

Left nostril discharges thin transparent mucus, with lachrymation of left eye. (I^{25}.)

Left nostril discharges yellowish mucus, with slight lachrymation of left eye. (I^{26}.)

Dry coryza in left nostril in A.M.; right nostril discharged white watery mucus in small quantities; at night the reverse, the left nostril discharges, and right nostril is dry. (I^{28}.)

Right and left nares alternately open, and stopped with transparent, watery, sticky mucus. ($I^{2\,29\,30\,31\,32\,33\,34\,35\,36\,37\,39}$.)

Slight influenza in P.M., for several days. (I^{49}.)

Pinched appearance about nose in A.M. (II^{2}.)

Scanty expectoration from posterior nares in A.M., with tight cough. (II^{3}.)

Slight influenza in evening. (II^{3}.)

Slight influenza in P.M., after siesta. (II^{4}.)

Scanty expectoration from posterior nares mostly, morning and evening. ($II^{4\,9\,15\,16\,17\,18\,19\,20}$.)

Left nostril stopped late in evening. (II^{12}.)

Profuse, rather viscid, easily expelled expectoration, with tendency to stoppage of nose. ($II^{21\,22}$.)

Right nostril stopped day and evening, mostly posteriorly. (II^{22}.)

Watery coryza from anterior nares, posterior nares closed tight. (II^{23}.)

Expectoration and yellowish-green coryza. ($II^{24\,25\,26}$.)

Influenza and expectoration not better in the open air. (II^{29}.)

Considerable influenza in the house disappearing in the open air, worse on the right side. ($II^{28\,30\,31}$.)

Profuse expectoration and influenza of thick yellowish matter from posterior nares; expectoration worse in open air; influenza better in open air. ($II^{32\,33\,34\,35\,36\,37}$.)

Discharge of very little blood-streaked mucus from left nostril in A.M., after bath. ($II^{38\,39\,40\,56\,57}$.)

Slightly excoriating watery coryza and slight expectoration in open air. ($II^{42\,43\,44\,45\,51\,52\,53\,54}$.)

Discharge of yellowish or greenish mucus from nose in A.M., after bath. (II^{46}.)

Excoriating coryza in open air, disappearing in the house and after washing face in cold water. (II[46 47 48].)

Some coryza as above; worse in evening. (II[49 50].)

Slight expectoration and watery coryza worse in right nostril. (II[55 56 57 58 59].)

Edges of nostrils slightly sore, as if excoriated. (II[57].)

Face.—Neuralgic pains in left side of forehead, with similar pains in head, an hour after tea; soon passed. (I[10].)

Neuralgic pains in right upper jaw (seemingly) proceeding from a decayed molar tooth (with swollen and tender gums). (II[11].)

Three small blister-like sores on right lower lip, which smart and burn when touched (I[21]); become like little ulcers (I[23]); and discharge bloody matter (I[24]); become very tender, and give rise to a binding, drawing sensation on lip, extending downward obliquely toward the right corner of the chin (I[26]); and seems to be healing, with a hard dry scab (I[28].)

Many little matterless pimples under beard (and hair), discharging blood when scratched (I[37 41 42]); discharge an oily transparent matter (I[38 39]); and are very tender. (I[40].)

Sore on external lower lip, just to right of centre (I[37]); becomes raw (I[39]); is sore, and has dry, yellow scab, and itches. (I[44].)

Pimple on left cheek becomes swollen and hard. (II[9].)

Darting neuralgic pains in the right side of the face. (II[16].)

Vague pains in right side of face, with slight tenderness of right upper back decayed molar tooth. (II[35].)

Boil just over left eye, growing rapidly; a second far above left eye, nearly in hair, but is scarce noticeable. (II[41].)

Neuralgic pains in both jaws of the right side, from decayed right upper back molar; worse in evening. (II[49].)

Mouth and Throat.—Slightly puckered sensation at base of tongue. (I[3].)

Inside of gum swollen and sore (with neuralgia); great aggravation by gently stroking gum. (I[11].)

Tongue coated yellow at base. (I[22].)

Tongue seamed antero-posteriorly with a deep red line. (I[27].)

Sore on inside left upper corner of mouth, and another inside upper lip, just to right of median line; better toward night. (I[31].)

Soreness of left side of roof of mouth, while eating, as if burned. (II[6].)

Right upper back decayed molar tooth, tender and sensitive to cold air, water, &c. (II[17 24 46].)

Pharynx very red and sore; tonsils slightly affected. (II[20].)

Toothache immediately aggravated by cold water, but soon relieved by it. (II[52].)

Toothache at night in sleep. (II[53].)

Gums bleed while brushing teeth. (II[55].)

Toothache just after dark. (II[55].)

Appetite and Taste.—Great desire for tea and claret (the latter unusual), at night. (I[1].)

Slightly soapy taste in mouth. (I[2].)

Excessive appetite and thirst. (I[2].)

Sour, bitter taste in mouth. (I[3].)

Sour, acrid taste in mouth always after taking the drug. (I[3].)

Decreased hunger; marked desire for green, acid vegetables and fruits. (I[5 6].)

Marked thirst. (I[20].)

No appetite for meat. (I[23].)

Appetite good. (I[24].)

Ravenous appetite. (I[29 30 31]; II[2].)

Gastric Symptoms.—Slight nausea (I[2 3]); increasing and with colic about noon. (I[2].)

Nausea as from tobacco, and painful consciousness of œsophagus from the mouth to the stomach. (I[2].)

Eructations and sour taste in the mouth after taking the drug. (I[2].)

Weariness, nausea, and pain in the stomach. (I[5].)

Indigestion soon after breakfast. (I[10 14 17 31 32 34 38]; II[9 13].)

Flatulence two and a half hours after tea. (I[10].)

Flatulence in P.M. (I[12].)

Sour, bitter eructations at night. (I[12].)

Slight indigestion after dinner (2.30 P.M.). (I[16 34].)

A single burst of putrid flatulence in P.M., an hour after dinner. (I[19].)

Indigestion during breakfast, relieved by hot cocoa. (I[33].)

Incarcerated flatus after dinner, distending abdomen and causing colic; somewhat relieved by walking and singing, continued during P.M. and evening. (I[38].)

Flatulence and eructations in A.M. after bath. (I[47 48].)

Bitter eructations in A.M. after bath. (I[50].)

Slight nausea in evening after taking the drug. (II[2].)

Considerable putrid-smelling flatulence. (II[4].)

Eructations in A.M. (II[9].)

Increasing nausea in A.M., reaching a climax about 1½ P.M., in a small, close, crowded room witnessing an operation, then deadly nausea (and vertigo), could hardly get into the street, where soon better. (II[20].)

Indigestion after breakfast, followed by diarrhœa. (II[21].)

Indigestion after breakfast, followed by pressure on the bowels as if diarrhœa would set in. (II[35].)

Stomach.—Wandering pains in stomach. (I[2].)

Colic in stomach after breakfast. (I[2].)

External soreness of stomach. (I[2 32].)

Pain and soreness at stomach. (I[3].)

Colic after drinking ice-water (*very* unusual); soon passed. (I[10].)

Dull vague pains and external soreness in stomach at night, about 10 P.M. (I[29].)

Lameness of stomach all day. (I[30].)

Sensation of weight in stomach (and chest) in A.M., relieved by eating. (I[47].)

Vague cramps in stomach in P.M. (II[2].)

Dull pain or cramp in stomach in P.M. (preceded by pain in left hypochondrium). (II[8].)

Abdomen.—Wandering pains in abdomen. (I[2].)

Darting colic or cramps in abdomen late at night before retiring. (I[19 20]; II[13 14 15].)

Sharp colic in abdomen in A.M. on rising. (I[25 47 48]; II[6 9].)

Sore feeling in abdomen (and stomach). (I[32].)

Dull colic, or cramps, in hypochondria, at night, after retiring. (II[4 5].)

Colic in lower part of abdomen in A.M. after bath. (II[7].)

Colic in abdomen (with aching weakness of back) while riding; soon passed. (II[7].)

Pain in left hypochondrium in P.M. (followed by dull pain or cramp in stomach). (II[8].)

Cramps in the abdomen, with flatulence, at night. (II[21].)

Colic in epigastrium in P.M. (II[24].)

Pressure on bowels as if to diarrhœic stool in A.M., preceded by indigestion. (II[35].)

Stool.—Small stool, with smarting anus and darting pains in rectum, and sensation as if something were retained in it. (I[1]).

Stool, with cutting pains in abdomen. (I[2].)

Scanty, bright-colored stool, with pain at stomach and soreness of anus after stool. (I[3].)

Stool, first half light-colored (otherwise normal), rest loose and nearly black. (I[6].)

Second stool (in the day) scanty, loose, black, and undigested, preceded by pricking colic in abdomen. (I[6].)

No stool for three days. (I[11 12 13]; II[52 53 54].)

Profuse hard stool passed with great pain, leaving smarting soreness of the anus. (I[14 17 19].)

Stool hard, large pieces, with tenesmus at close of stool, and convulsive shuddering during stool. (I^{17}.)

Stool as above, with sensation of more egesta to be expelled. (I^{19}.)

Stool followed by dull pain at pit of the stomach. (I^{20}.)

Very light-colored stools. ($I^{22\ 24}$.)

Very light-colored stools, followed by vague darting pains in region of external pubic arch. (I^{24}.)

Two small undigested stools in the same day; one in A.M., and one about 1½ P.M. (I^{28}.)

Profuse stool of large pieces in A.M.; latter part loose and blackish, with looseness of bowels during stool, and followed by lameness of stomach all day. (II^{30}.)

Loose, lumpy, blackish-brown stools, followed by sore feeling in stomach and abdomen. (I^{32}.)

Hard small stool, with cutting pains in abdomen during stool. (I^{34}.)

Hard, dark-brown stool, with burning in ano during and after stool. (I^{36}.)

Hard, dark stool, leaving smarting in ano, and sensation of more egesta in the rectum. (I^{38}.)

Loose stool at night. (I^{39}.)

Stool in P.M., with slight colic in abdomen. ($I^{41\ 42}$.)

Stool in A.M., with excoriating sensation at anus. (I^{44}; II^{10}.)

Stool in P.M., a single, short, thick piece, expelled with great tenesmus. (I^{48}; II^{7}.)

Loose stool in P.M. (I^{49}.)

Loose dark stool in P.M. (II^{2}.)

Hard, small, dark stool in A.M. ($II^{4\ 5}$); expelled with great tenesmus. (II^{4}.)

Stool in P.M., preceded by pain in left side of chest and abdomen. (II^{6}.)

Small dark stool in P.M. (II^{8}.)

Stool in evening, a single, short, hard, thick piece. (II^{12}.)

Profuse, painless, dark stool in evening, with great tenesmus. (II^{14}.)

Stool in P.M., with great tenesmus. (II^{17}.)

Stool in evening with excoriating sensation at anus, and shooting colic-like pains in inguinal region. (II^{18}.)

Diarrhœic stool with great tenesmus, and pain in abdomen, leaving hot feeling of bowels and anus. (II^{21}.)

Sensation of constriction at anus. (II^{22}.)

Profuse light-colored stool in A.M. on rising, with tenesmus, and an excoriating sensation in and preceded by cutting colic in epigastrium. (II^{24}.)

Stool in P.M., preceded by a brief spasm of sharp cutting colic in abdomen, with stinging and burning of anus during stool, and soreness of anus after stool. (II[27].)

Stool in evening, preceded by a single spasm of cutting colic in the stomach, with tenesmus. (II[28].)

Small easily evacuated stool. (II[30 31].)

Small easily evacuated stool, with slight tenesmus. (II[32].)

Loose, pappy, light-brown painless stool in A.M. (II[34].)

Pressure on bowels as if to stool, and constriction of anus after breakfast. (II[7].)

Pressure on bowels as if to diarrhœic stool, preceded by indigestion in A.M., after breakfast. (II[35].)

Pappy, excoriating stool late in evening. (II[37].)

Stool, preceded by sharp pain in rectum; hard, with excoriating sensation at anus, and great urging in the rectum. (II[40].)

Small hard stool at night, easily evacuated. (II[41].)

Small stool at night with darting colic in lower part of abdomen, leaving soreness and constriction in the anus. (II[42].)

All stools dry and hard for a long time. (II[43].)

Loose stool in evening, with sharp cutting colic in lower part of abdomen. (II[44].)

No stool for four days. (II[45 to 49].)

Stool in evening, preceded by severe colic in stomach, relieved (*pro tem.*) by drinking cold water; aggravated by walking; sensation of constriction in stomach, with stool, colic, eructations and much flatus. (II[49].)

Stool in A.M., leaving a little soreness of anus, but tolerably comfortable. (II[51 60].)

Stool in evening, leaving sore, lame, strained feeling of sphincter ani. (II[57].)

Stool in P.M., leaving soreness of anus, and sensation of more egesta to be expelled. (II[60].)

Urine.—Putrid dark urine becomes unoffensive and light. (I[2].)

Urine very pale, and micturition slightly painful. (I[8].)

Retention or suppression of urine from 6 P.M to 8 P.M. (following day); no pain or unpleasant sensation; urine when voided of very pale color and about a teacupful. (II[33].)

Genitals.—Uneasy feeling of genital organs. (I[2].)

Drawing sensation in spermatic cord and left testicle in A.M.; the same again from 5 to 6 P.M., with absolutely irresistible amorous fancies both pure and impure. (I[45].)

Drawing sensation for a few moments in left testicle; no moral symptoms. (I[46].)

Bruised pain in testes late in P.M., as if crushed or injured. (II[5].)

Painful consciousness of testes (with heat in forehead and eyes); soon passed. (II[7].)

Respiratory.—Expectoration most in evening. (II[14].)

Very scanty expectoration all day (II[6 7 11 25 26 27 28 29].)

Profuse expectoration in A.M. (II[9].)

Scanty expectoration in A.M., after bath. (II[5 8].)

Scanty expectoration seemingly from throat. (II[42].)

Profuse expectoration of transparent tasteless slightly viscid mucus all day, less after nightfall. (I[6].)

Scanty expectoration of frothy mucus. (I[8].)

Very scanty expectoration of transparent slightly viscid mucus. (I[11 23].)

Very scanty expectoration of transparent stringy mucus in A.M. (I[14 19].)

Sensation of dust in larynx and increasing soreness. (I[21].)

Hoarseness, with rare tight cough in evening. (I[24].)

Frequent expectoration of transparent mucus in small quantities. (I[21].)

Throat red and sore, sharp short dry cough, and hoarseness. (I[29].)

Tight cough on rising. (I[29 30].)

Sharp, short dry cough, leaving a strained sensation in the lungs, and slightly rasping throat, caused by itching of throat. (I[23].)

Tight, short, rasping cough leaving strained sensation in head and chest. (I[24].)

Profuse yellowish slightly viscid expectoration from throat and posterior nares. (I[24].)

Slight hoarseness with cough. (I[23 24 25].)

Scanty expectoration of transparent mucus early in the day, more and yellowish from about 12 to 3 P.M., transparent again toward night, with transparent discharge from left eye and nostril. (I[25].)

Increased hoarseness with decreased cough. (I[26].)

Profuse expectoration of transparent mucus early in the day, yellowish from about 12 to 3 P.M., transparent again toward night, with yellowish discharge from left nostril. (I[26].)

Profuse expectoration of yellowish mucus from throat and right posterior nares. (I[27].)

Throat longitudinally inflamed in strips like ulceration. (I[27].)

Scanty expectoration of yellowish mucus from throat and right posterior nares. (I[28].)

Profuse expectoration of transparent, sticky mucus, from throat and posterior nares (I[29]), with influenza. (I[30 31].)

Marked hoarseness in evening. (I[31].)

Cough in A.M., after bath. ($I^{32\,33}$.)

Profuse, slimy, adhesive expectoration with influenza. (I^{32}.)

Scanty, slimy, adhesive expectoration, detached from throat and posterior nares with great difficulty, with influenza. ($I^{33\,34\,35}$.)

Cough in A.M., on rising before bath. (I^{35}.)

Expectoration and influenza in A.M., on rising ($I^{36\,37}$); slightly also in evening. (I^{37}.)

Very scanty expectoration in A.M. and evening. ($I^{38\,39}$.)

Scanty expectoration, mostly in evening. (I^{40}.)

Scanty expectoration from posterior nares in A.M., with tight cough. (II^{3}.)

Very scanty expectoration from posterior nares, A.M. and evening. (II^{4}.)

Expectoration from posterior nares. ($II^{15\,16\,17\,18}$.)

Profuse rather viscid expectoration. ($II^{21\,22}$.)

Infrequent, tight cough. (II^{22}.)

Hoarseness better in open air and in evening. (II^{23}.)

Expectoration not better in open air. (II^{29}.)

Expectoration for many days better in open air. (II.)

Expectoration in open air and influenza in the house. (II^{31}.)

Profuse, yellowish expectoration from the posterior nares. ($II^{32\,33\,34}$.)

Scanty greenish-yellow expectoration. (II^{38}.)

Lumpy, white expectoration in evening. (II^{40}.)

Chest.—Dull throbbing pain in apex of left lung. ($I^{1\,2}$.)

Itching on chest above sternum. (I^{2}.)

Chest lame and raw behind sternum (with nausea). (II^{20}.)

Oppression and rawness of chest. (II^{23}.)

Severe dull pain or weight in left side of chest (at the end of the gladiolus), which seems superficial. (II^{40}.)

Back.—Weakness of middle of back. (I^{2}.)

Itching of back between scapulæ. (I^{2}.)

Painful rigidity of muscles of back (and shoulders); noticed when putting on or off a coat. ($I^{37,\,38,\,42}$.)

Slight rigidity of back and tenderness to the touch. (I^{44}.)

Pain in left side of neck. (I^{47}.)

Small of back weak; only noticed when lying on the back. (II^{2}.)

Painful rigidity of right side of neck and back of neck in P.M. (II^{3}.)

Weakness of back (with stiff, swollen fingers, &c.). (II^{5}.)

Aching weakness of back while riding twice in P.M. (II^{7}.)

Backache in dorsal region in P.M., and also after retiring, causing great discomfort and restlessness. (II^{12}.)

Vague pains in right scapular region in P.M. (II^{34}.)

Upper Extremities.—Numbness and sticky sensation of hands. (I^{2}.)

Neuralgic pains in shoulder, extending to wrist and back of hand. (I^{3}.)

Backs of hands inflamed as if sunburned. (I^{6}.)

Exquisite soreness of left forefinger under nail. (I^{12}.)

Painful rigidity of muscles of shoulders (and back); noticed when putting on and off coat. ($I^{37\ 38\ 42}$.)

Rigidity passes into right forearm and both hands, disappearing in P.M. (I^{39}.)

Fingers very stiff and painfully rigid; dreamed of trying to catch and hold an eel and was unable because of stiffness of fingers. (I^{40}.)

Shoulders and arms rigid, and painful to touch; it is painful to put on or off coat. Worse in A.M. and evening; better in open air and walking. (I^{41}.)

Darting pain from elbow to wrist, diagonally across arm. (I^{41}.)

Slight rigidity of fingers and tenderness to touch (also back and legs). (I^{44}.)

Sharp pain in right thumb, extending to wrist, for a half hour or so. ($I^{46\ 47}$.)

Fingers puffy and stiff in A.M. (I^{47}; $II^{5\ 19}$.)

Sharp darting pain in left shoulder about 6¾ P.M. (II^{1}.)

Sharp pain in ulna at wrist several times during evening. (II^{1}.)

Painful rigidity of left thumb; and puffiness of fingers mainly of right hand. (II^{3}.)

Joint of second finger of left hand (between second and third rows of phalanges) swollen, and very sensitive to lateral pressure. ($II^{5\ to\ 9}$.)

Increasing painful rigidity of arms and shoulders (and back), till late in P.M., and not noticeable in evening. (II^{5}.)

Hands and shoulders painfully rigid in P.M., especially right hand. (II^{11}.)

Pain in hands late in evening. (II^{11}.)

Painful rigidity of shoulders, arms, and hands (and legs). (II^{12}.)

Darting pain in, and sweat of, hands, when holding anything. (II^{15}.)

Vague shooting pains in hands, especially toward night. ($II^{17\ 18}$.)

Hands somewhat painful and rigid in P.M., especially right hand. (II^{21}.)

Distressing sensation of uneasiness (barely pains) in hands. (II^{22}.)

Painful cramps in right hand, and stiffness and numbness of little finger in P.M. (II[23].)

Right little finger numb and stiff awhile in A.M. (II[33].)

Vague pains in right arm, hand, and wrist in evening. (II[35].)

Middle finger of left hand stiff and puffy in P.M.; some pains in metacarpus and phalanx of same finger. (II[52].)

Lower Extremities.—Pain in fourth toe of right foot (as if asleep) while lying down, with sweat. (I[1].)

Weariness in knees after walking (such as I usually feel in calves of legs). (I[2].)

Feet slightly swollen and tender. (I[31].)

Legs (mostly left), slightly stiff in evening. (I[43].)

Slight rigidity and tenderness to touch of legs. (I[44].)

Painful rigidity of legs in A.M. (II[11 19].)

Painful rigidity of legs, especially right leg. (II[12].)

Painful rigidity of upper part of legs (thighs?), worse in P.M., worst in early evening. (II[14].)

Ball of fourth toe of left foot suddenly becomes tender while walking in A.M., and so remains all day. (II[27].)

Feet very tender. (II[35].)

Lameness in inner part of left knee for three or four days; noticed in A.M. when at usual bath. (II[49].)

Stiff and weary in posterior part of left knee. (II[55].)

Lameness in inner part of left knee when stooping or walking fast. (II[57 58].)

Sleep.—Sleepiness in P.M. and wakefulness in evening. (I[1].)

Excessive weariness and sleepiness between 10 and 12 A.M. (I[19].)

Very weary and stupid all day; could easily fall asleep, although not in want of rest. (I[30].)

Dreamed of trying to catch and hold an eel, but was unable because of stiffness of fingers. (I[40].)

Fever.—Throbbings of heat, as if about to burst into a sweat, at 6.15 P.M. (I[1].)

Perspiration in evening. (I[1].)

Slight fever, with cold sweat. (I[5].)

Extreme lassitude, feeling as if going to be sick, with slight fever and no sweat. (I[6].)

Suffered unusually from cold while taking my usual bath in A.M. (I[25].)

Very cold in A.M. before breakfast. (I[39].)

Pulsations or throbbings of heat as if about to burst into a sweat, with sweat in P.M. and evening. (II[1].)

Sweat with siesta. (II[1].)

Flashes or pulsations of heat in P.M. after dinner, but no sweat. (II[5].)

Great heat and sweat during P.M. and evening. (II[9].)

Sweat of hands when holding anything. (II[15].)

Sweat on hands. (II[16].)

Skin.—Hard, inflamed pimple on right arm, sensitive deep into flesh; has a black head, which may be forced to surface by gentle pressure, and appears as if to exude matter when so pressed; feels like a vaccine pustule. (II[3].)

Boils on face; pimples under beard and hair. Sensation of weakness in left side. (I[2].)

General Symptoms.—Desire for night air, but weariness while in it. (I[5].)

Pain in right side of pelvis, followed by weariness, nausea, and pain at stomach. (I[5].)

General lassitude about 2 P.M. (II[1].)

General lassitude all day till evening, when livelier. (II[2].)

Great disposition to lie down and stretch out. (II[2].)

Feel weak and languid; no pluck, but suffer an intolerable lassitude after siesta. (II[7].)

Voluptuous, burning, aching sensation in extreme pubic arch in P.M. (II[8].)

General painful rigidity. (II[11].)

General languor; feel absolutely indefinitely unwell all over. (II[45].)

Stiff and weary all over. (II[55].)

Ameliorations.—Strong desire to be in open air, and feel better there. (I[6]; II[22].)

Better (generally) in open air and walking. (I[41 42].)

Better after eating. (II[2 50].)

Aggravation.—Worse (generally) after siesta. (II[4 7].)

XLI.

EUCALYPTUS GLOBULUS.

By Edwin M. Hale, M.D., Chicago, Ill.

Analogues.—China, (?) Cedron, (?) Canchalegua, (?) Arnica, (?) Sulphur (?).

2d group. Carbolic Acid. Sulphite of Soda. Bromide of Potassa. Sulphuric Acid.

Botanical.—The Eucalyptus globulus belongs to the natural order of Myrtaceæ, the same as the clove (Caryophyllus aromaticus), the Cajeput (Melaleuca minor), and the Pimenta (Eugenia pimenta).

There are over a hundred different species, of which this is one of the noblest representatives. It is a tree of gigantic proportions, sometimes reaching a height of three hundred feet and a diameter of thirty feet. The wood is very dense and hard. The leaves are green, petiolated, thick, and coriaceous, with a very developed median nervure, *lanceolated, falciform* (this last characteristic is very remarkable). Their growth is dimorphous, and consequently no two leaves can be exactly superimposed unless gathered from the same side of the peduncle.

History.—The Eucalyptus is a native of the Australian and Tasmanian forests, where it grew unknown to the outside world till about forty years ago. The tree was first transplanted, so far as I can learn, in the year 1855, when it was introduced into France. It has since then been introduced in the southern provinces of Corsica, Algiers, and Spain. In all these countries the Eucalyptus is known by the common name (given it in Spain) of Arbore da febre (fever tree), on account of the marvel-

lous results observed in its use in the treatment of intermittent and other fevers.

It is a singular fact, that in the neighborhood of the Eucalypti forests, intermittent fevers are not known. For instance, although Tasmania is noted for its malarial fevers, yet in the austral portions, where there are large forests of this tree, such a thing as intermittent fever is unknown. Just why this is so we hardly know, but it would seem from the observations of several eminent medical men, and from the reports of travellers, that the aromatic emanations from the clump of Eucalypti, neutralize the effluvia from the neighboring marshes, and that the falling leaves and desquamating bark render wholesome their waters. We find that no matter how full of bacteria and other infusoria water may be, the addition of a few drops of Eucalyptus tincture immediately clears it, killing all animal or cryptogamous life immediately.

Travellers say that the water in pools at the foot of a large Eucalyptus can be drank with impunity, while that in other pools in the near vicinity it would be very imprudent to drink, even in small quantity.

MM. Cordier, Trottier, and Sautiére have planted on their lands large forests of the Eucalyptus, for the protection of their immediate neighborhoods; M. Sautiére alone has over 30,000 of the trees. They feel confident that when large forests of these trees shall abound in their now malaria-stricken country, health and prosperity will reign.

From the foregoing, we can readily imagine the benefits which might arise from planting forests of the Eucalyptus in the malarial districts of our own country. It is a tree that grows readily in almost any soil or climate, if it be not too cold. The worst of our malarial districts are, I think, very similar in soil and climate to its natural home.

I think a few thousand dollars expended by our agricultural bureau at Washington, in the importation and transplanting of these grand trees, would not only add greatly to the beauty of the country, but be a handsome financial speculation. It would furnish us the brains, mechanical skill, and ingenuity, and the labor of thousands of poor suffering creatures who to-day are a

source of expense instead of income, and it would, I believe, rid the physician of his chief pest to a very great extent.

CHEMICAL.—According to Cloez, the leaves of the Eucalyptus contain a small quantity of resin, a large proportion of essential oil and of tannin, similar to that of gallnuts. The leaves have been used for tanning hides.

An essence is obtained from the leaves, called Eucalyptol, the chemical formula of which is $C_{20}H_{20}O_2$. You will notice that it resembles camphor. In composition, it is dixtrogenous; boils between 170° and 175°; its density is 0.905.

The resin resembles the resin of cinchona, and yields a substance capable of neutralizing strong acids, and forming crystalline salts. The sulphate crystallizes in stars like the quinine salt. Under the action of chlorine and ammonia, a green coloration, like that of quinia, is immediately produced.

The Eucalyptol has a peculiar agreeable odor, resembling very markedly camphor, lavender, and the walnut, and is very fragrant. The taste is aromatic, hot, bitter, and somewhat acrid, and excites the salivary glands.

MEDICAL HISTORY AND PROPERTIES.—About forty years ago, M. De Salvy, a captain in the English Navy, was forced to put into Botany Bay, in consequence of a pernicious fever that broke out among his crew. He witnessed, by the use of an infusion of Eucalyptus, some very remarkable cures. It seems probable that this was the disease we term ship fever, a species of typhus, having quite marked cerebral symptoms.

These facts coming to the knowledge of some French physicians, they prosecuted a series of experiments, and closely studied its properties so far as they related to the medical world, and for a time it was a very prominent remedy for many diseases. But our medical brethren of the old school could not give up their old remedies, and as they do not recognize our law of cure, could not find the place in disease for this drug; and consequently it has until within a year or two gone almost entirely out of use. Now that our school have taken hold of its study, and in a scientific manner, I feel confident (as every drug in God's great kingdom has its special relation to some abnormal condition in the human system) that we shall find the place for

Eucalyptus globulus, which, I think, will prove to be no insignificant one.

OFFICINAL PREPARATIONS.—Tincture from the leaves and flowers (also from small roots), dilutions, infusions, decoctions of the leaves, powdered leaves, triturations.

None of the alkaloids nor the actual principle have been used sufficiently as yet to enable me to obtain any information of value in regard to them. I believe, however, that some preparation, either alkaloid or active principle, will become officinal.

PROVINGS.—I regret that I am unable to present to the Institute an array of provings such as I should desire. It is a very difficult matter to obtain a reliable proving, owing to its inertness. You will see by the meagre and fragmentary provings (which are the best I have been able to obtain), that very few (and many of them unsatisfactory) symptoms were obtained, even though massive doses were taken. The same prover, however, intends to continue its use at intervals, and in such a manner as to make what symptoms he reports perfectly reliable.

I think it would be advisable to continue the investigation of the properties of this drug for another year, and I am confident much will be done toward a perfect and scientific knowledge of its effects and use.

Several provers report no symptoms, while quite a number have made no report to me at this writing.

Dr. D——, male, æt. 26; light complexion, blue eyes, dark hair, beard a little sandy, slight figure.

Sunday, May 10. Ten drops in half a glass of water; three-fourths of an hour after sensation in stomach as though it were too full; as though he had eaten too much; not much pain; lasting about an hour. During the entire evening eructations tasting of the drug.

9.30 P.M. Ten drops in water; noticed no new symptoms excepting an uncomfortable, uneasy feeling in umbilical region.

May 12th, 7.30 A.M. Ten drops in water; in half an hour same sensations as before, but extending through the bowels farther; skirmishing, aching pains in the upper portions of the bowels. Feel as if I would have a diarrhœa. Dull feeling in the head;

eyes hot, burning, and smarting; some stiffness of the nose. The Eucalyptus eructations continue.

12.30 P.M. Ten drops in water. No new symptoms.

6.30 P.M. Ten drops in water. No new symptoms.

9.45 P.M. Ten drops in water. Notice a feeling of fulness and soreness in the throat on swallowing; some burning in throat; eyes still burning and hot; feel as though I had taken cold.

May 13th, 7.30 A.M. Ten drops in water; still have the cold. This morning, on getting up, felt sharp, aching pains in lower part of bowels, accompanied with a thin, watery diarrhœa, yellow in color.

12.30 P.M. Ten drops in water.

6.30 P.M. Twenty drops in water. Diarrhœa has ceased; fulness and pressure in stomach. During the afternoon have had a constant sensation as of phlegm in throat, and expectoration of slightly thick white frothy mucus, not profuse.

Examinations by Dr. Hale showed a relaxed, aphthous condition; feel very little of the soreness now; considerable coryza.

May 14th. Took none of the drug; the cold has almost entirely disappeared.

May 15th, 12 M. Thirty drops in water. Same full, uncomfortable sensation in stomach as if I had eaten or drank too much. The burning in the eyes commencing again.

6.30 P.M. Thirty drops in water.

May 16th, 7 A.M. and at 12 M., thirty drops in water. Same feeling in stomach; burning eructations, and tasting of the Eucalyptus. My bowels for a long time have been perfectly regular, excepting since taking this drug. This morning missed, have some urging. After eating dinner, considerable pain of a sharp, aching character, in hypogastric region; eructations continue; some burning in stomach.

6 P.M. Thirty drops in water.

11 P.M. Thirty drops in water. Nothing new.

May 17th, 7 A.M. Thirty drops in water.

12 M. and 6.30 P.M. Thirty drops each time. The cold returns to-day; some coryza; burning of eyes; general full feeling of head; feel dull and sleepy; dull frontal headache; eyelids heavy. Twenty minutes after eating my dinner, while sitting at

the desk putting up medicines, a very peculiar sensation of faintness and goneness at stomach, accompanied by a distinct sensation of beating, which, on consultation with Dr. Hale, I concluded was a beating of the abdominal aorta, perfectly synchronous with the heart. This sensation continued at times all the afternoon, and the next forenoon. Other arrangements now prevented my continuing the proving. Since then have had some irregularity of bowels, and experienced a lack of prompt digestion.

Mrs. D—— took the drug in five-drop doses, at two or three different times, taking it three or four days each time. Could get no detailed account of her symptoms, as she did not think the drug was having any effect. But on inquiry I learned that each time she had a cold in the head, and a thin diarrhœa, accompanied by aching (rather sharp) pains running through the bowels, particularly in the morning.

SYMPTOMATOLOGY.

MIND.—General excitement. (B. J. of H., vol. xxx, p. 604.)

A desire to be continually moving about. (N. A. J. of H., new series, vol. iii, p. 14.)

General malaise. (Eclectic Journal of Cincinnati.)

SENSORIUM.—Sensation of intoxication (as from a room recently painted with turpentine, or full of the perfume of flowers). (N. A. J. of H., vol. iii, new series, p. 14.)

HEAD.—Nervous headaches, and other pains of the head, which are not exactly periodic. (B. J. of H.)

Congestive headache. (Hale.)

Dull, heavy frontal headache. (D.†)

Dull, heavy feeling of the head.

EYES.—Hot, burning, smarting sensation (as from a cold).

Lids feel heavy.

FACE.—Flushed.

NOSE.—Stuffed up.

Thin watery coryza.

MOUTH AND THROAT.—*Burning taste extending to pharynx and œsophagus.

*Excessive secretion of saliva.

Thirst. (B. J. of H., vol. xxx, p. 607.)

Throat feels full; sore on swallowing.

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† All symptoms with no credit given belong to this prover.

Expectoration of a white, thick, frothy mucus.
Sensation as of phlegm in throat all the time.
On examination of throat I found it relaxed and pale.
STOMACH.—Strong-smelling eructations.
Eructations tasting of Eucalyptus for hours after taking the drug.
Slow digestion.
Laborious digestion. (N. A. J. of H., vol. iii, p. 14.)
Hot, burning sensation in the stomach.
Improves the appetite. (B. J. of H., vol. xxx, p. 603.)
Sensation of having eaten or drank too much.
A strange sinking, faint sensation at stomach.
ABDOMEN.—Feeling of weight in epigastrium.
Uncomfortable pressure and fulness in the umbilical region.
Slight aching pains in upper part of bowels, then extending all through the bowels.
Sensation in bowels as if he would have a diarrhœa.
(Dr. Masler experimented on animals, and found that it produces, like quinine, contraction of the spleen, which, under its use, becomes more resistant and hard, its surface granulated, and the whole organ diminished in size.)
STOOL.—Dysentery.
Diarrhœa, with odor of plant. (N. A. J. of H., vol. iii, p. 14.)
Typhoid diarrhœa and dysentery.
Constipation of short duration.
*Thin, watery diarrhœa, preceded by sharp, aching pains in lower part of bowels. (The prover, some weeks after getting this symptom, having the same kind of a diarrhœa, took Eucalyptus, and with the best of results.)
Chronic diarrhœa. (B. J. of H.)
URINE.—Incontinence. (B. J. of H., vol. xxx, p. 603.)
Diuresis.
Vesical catarrh. (Hale.)
Suppressed urine. (Hale.)
GENERATIVE ORGANS.—Ulcer around orifice of female urethra. (French Hospital.)
Recent cases of syphilitic chancres. (French Hospital.)
Gonorrhœa syphilitica. (French Hospital.)
Leucorrhœa. (Hale.)
Spasmodic stricture of urethra. (N. A. J. of H.)
CHEST.—Bronchitis. (N. A. J. of H., vol. iii, p. 14.)
Respiratory movements quickened.
Aneurism involving pressure on the vagus and its branches. (McLeon.)
Cardiac asthma. (McLeon.)

(I have a case now under treatment of aneurism of the descending aorta, accompanied by very great dyspnœa, particularly when lying down; it is, I think, the worst case I ever saw. After trying several other remedies, and failing, I gave some of the first decimal dilution of Eucalyptus. The next day my patient said: "Now, Doctor, you have struck my case right at last!" and it seems as if I have.)

Strong beating of the abdominal aorta synchronous with the beating of heart.

LOWER EXTREMITIES.—Dr. Pigneduputren, of the French Hospital, reports a case of arteritis of the leg, succeeded by gangrene so high up as to prevent amputation. A large ulcer supervened, the odor from which was horrible. After trying all the disinfectants he knew of he, as a last resort, applied a decoction of Eucalyptus, and says that, without exaggeration, the bad odor was all gone in five minutes.

SKIN.—Ulcer from varix of a year's duration. (French Hospital.)

Fistulas. (French Hospital.)

Injections in suppurating wounds.

Dressing for recent wounds.

SLEEP.—Uneasiness with loss of sleep. (N. A. J. of H., vol. iii, p. 14.)

In anæmic persons produces sleep. (Ibid.)

FEVER.—Remittent fevers.

Tuberculous fevers, with profuse sweats. (Eclectic Journal.)

Intermittent fever, double tertian.

Intermittent fevers where quinia fails.

Intermittent fever where quinia produced aggravations.

Pernicious fever on shipboard (probably ship-fever). (M. De Salvy.)

It has been very highly recommended for the cure of intermittent fevers by the physicians of Australia, Spain, and Algiers especially. They present it as a substitute for cinchona, and often cure with it when cinchona fails. We of course would not think of it as a substitute, but will, by careful study, I think, find it indicated in some cases where we formerly would have used the cinchona.

Dr. Trot, of Illinois, has used it in several cases of intermittent, where there seemed to be a tendency to non-development, the stages not being very distinct, and with good success.

Dr. Fanstock, of Indiana, has tried it, and never received any beneficial results.

Dr. Wooster, of San Francisco, Cal., reports 135 cases treated exclusively with a fluid extract of Eucalyptus.

Cases treated with Eucalyptus globulus.

	Cases treated.	Cured.	Improved.
Remittent fevers,	5	5	
Intermittent fevers,	19	19	
Typhoid fevers,	9	9	
Nephritis,	4	3	1
Diuresis,	10	7	3
Incontinence of urine,	3	3	
Vesical catarrh,	27	25	2
Blennorrhagia,	13	10	3
Valvular disease of heart,	7		7
Dysentery,	4	3	1
Chronic diarrhœa,	13	9	4
Gonorrhœa (syphilitic),	15	10	5
Dropsy,	6	3	3

(From the *Monthly Homœopathic Review*, vol. xvi, p. 352. They are supplied by Dr. Joseph Keller.)

The number of patients treated with tincture of Eucalyptus was 432. Of these 310 (71.76 per cent.) were perfectly cured, and 122 (28.24 per cent.) required to be afterward treated with quinine.

Of the 310 patients cured, no paroxysms occurred after the first dose in 202; in the remaining 108 there were one or more subsequent paroxysms, which, however, yielded to repeated doses. The several types were represented as follows: *Quotidian:* Complicated 117, simple 73, total 190; of which 67.89 per cent. were cured. *Tertian:* Complicated 126, simple 95, total 221; of which 75.57 per cent. were cured. *Quartan:* Complicated 16, simple 4, total 20; of which 70 per cent. were cured.

XLII.

REPORT AND CONCLUSIONS

FROM A

PHYSIOLOGICAL PROVING OF VACCINE UPON SHEEP.

TRANSLATED BY JONATHAN PETTET, M.D., CLEVELAND, O.

Fifth Physiological Proving of Homœopathic Vaccination, in March, 1866. *By* DRS. A. RITTER *and* IZYDOR RITTER.

THIS year I divided my lambs into four parts.

The first part, consisting of thirty-two head, received on the 20th, 21st, and 22d of March the lymph of 1862, preserved in alcohol, in the proportion of one drop of the alcoholic preparation to an ounce of pure well-water. Of this dilution, on the days mentioned, I gave each head a tablespoonful. The following symptoms appeared on the sixteenth day after the last dose: A moderate fever; snuffles; reddened eyelids; an eruption on the flanks from the size of millet-seeds to that of hemp-seeds. Besides this, each head had vesicles on the upper lips; yet all took their food and drink as if in sound health.

The second part, consisting of sixteen head, received the sugar of milk trituration of lymph, from the year 1862, which had been kept in corked bottles, in a dry, dark place. I now took one grain of this trituration to an ounce of clean well-water, shook well several times until the milk-sugar had been dissolved, and gave each head, on an empty stomach, a tablespoonful on the above-mentioned days. The symptoms were as follows: On the sixteenth day after the last dose, I noticed a very

marked fever-heat; the eruption on the flanks and lips were at first the size of poppy-seeds, then of millet-seeds, and of peas during the last stages, at which time the fever-heat rose. A single head lost its appetite, the feet around the hoofs and knees were swollen, the animal could not stand, and the fever was very high. For this I gave each morning three drops of *Aconite 6th*, and two hours after three drops of *Rhus* in six tablespoonfuls of water. After such medication the fever lessened on the third day. The swelling around the hoofs and the knees moderated so far that the animal could stand and walk. In a few days the appetite returned.

The third division, consisting of ten head, had the ninth attenuation triturated with sugar of milk. Of this I gave three drops in a tablespoonful of well-water, for three mornings, on an empty stomach. The symptoms followed in exactly the same course as in the earlier proving. Only a single head showed a strong reaction, in the manner related of the second division. This was treated with *Aconite* and *Arsenicum*. Here I must remark that the eruption on the flanks and lips showed brown crusts in the usual time; fell off about the twentieth day; later existing pustules (vesicles) ended this process a few days after. Thus the homœopathic process lasts thirty days generally. Here I cannot refrain from remarking that in this year the spring has been constantly warm, and also that this proving was uncommonly mild, but that even in unfavorable weather the homœopathic vaccination does not cause the slightest harm when the above-given cautions are observed.

The fourth division, consisting of forty head, I vaccinated in the usual way with the lymph of the year before. The vaccination worked very poorly and the vaccine vesicles developed very sluggishly. In ten head the vaccination did not even take, a thing I had never had happen in former years. I therefore determined to administer to these the ninth homœopathic attenuation of the lymph, in the same way as above with the third division, three mornings, on an empty stomach. Fifteen days after the last dose the characteristic vesicles showed themselves, just as in the third lot, followed the same course, with the same symptoms, and without any further difficulty.

I am an agriculturist and breeder of many years' experience, and have had several unhappy accidents in my flock; but since I became acquainted with the homœopathic means of cure, and have read the publication for thoughtful agriculturists in the quarterly called "Homeopata Polski," I determined (accurately) scientifically to make provings in my flock, according to the rules there given, as well by the usual method as by the homœopathic vaccination with lymph potentized in alcohol or triturated in sugar of milk, and have arrived at the conviction:

I. That the inward administration of the lymph in homœopathic potency, either in alcohol or in sugar of milk, protects the sheep against a prevailing epidemic, before it has yet shown itself in the flock, even if it is already raging in the vicinity, and if this is given early enough as a preventive to the sheep as yet sound and perfectly exempt.

II. That this prophylactic can be exhibited at any time, with the best results.

III. That the inward exhibition of the homœopathically prepared lymph, either in alcohol or in sugar of milk, and in either the lower or the higher potencies, is followed by an eruption on the sheep similar in the minutest details to the natural pox, both on the flanks and around the mouth, on the ninth day, and sometimes considerably later.

IV. That the sheep pass through the homœopathic vaccination process by the inward administration of the lymph, without severe fever-heat, without loss of appetite, without weakening the vital functions, and without *sequelæ*.

V. That the homœopathically prepared lymph given inwardly works the quicker and without injury to the vegetative sphere, of which we have the clearest proof in the fourth part of the fourth proving.

VI. That with the above precautions the lymph can be preserved for years in alcohol or sugar of milk without losing its power, and hence can be used at any time of the year, while the ordinary vaccination can only be performed in the spring with any certainty of success. Besides this, it must not be forgotten that the usual vaccination requires lymph collected fresh every year by a skilful and experienced individual; otherwise

all the trouble of an ordinary vaccination is good for nothing. In fine, we cannot deny that the sheep inoculated in the usual way get the natural pox, of which I was obliged to have the experience in my own flock; yet I venture to speak my mind strongly upon the physiologico-pathological proving, that the homœopathically prepared lymph produces the desired effect far more surely (certainly) than the usual inoculation.

VII. No less strongly does the inward administration of the homœopathically prepared lymph recommend itself where the natural pox has broken out in the herd, because with the development of the disease the indicated homœopathic remedies are a powerful means for subduing the fever-heat; but if the pocks have shown themselves, they run an uncommonly mild course when homœopathically prepared lymph is given inwardly, and without leaving any *sequelæ*, as is the case with the ordinary inoculation, since the allopathic veterinary art possesses no remedy for this disease.

The results of my physiologico-pathological proving I make known, with the wish that breeders with numerous herds may undertake similar provings, to settle the question, which mode is the more protective against the natural disease? An important result for the welfare of the whole land can be attained in case of the common acceptance of my experiments (and conclusions).

XLIII.

SULPHUR IN ACUTE DISEASES.

By Conrad Wesselhœft, M.D., of Boston, Mass.

We once ventured to express the opinion that elementary substances most widely diffused throughout nature are apt to be the most useful medicinal agents.* Such substances are applicable in a great variety of disorders which are also very common. This assertion holds good with regard to those with which we have become familiar; for example, mercury, antimony, iron, silver; on all of these we have become very dependent in practice. Many other metals are less well known, being less common in nature, and we are, perhaps for that reason, much less dependent on them as medicinal agents.

There are other elements much more common than the metals, for instance, *Lime* and *Sulphur*. While the former is most abundant, playing a most important part in inorganic as well as organic nature, the latter is most ubiquitous, and more evenly and widely diffused, and probably a component of every organic body. All protein bodies contain Sulphur,† and consequently it is a component of the animal body, as can be readily shown. That it is found combined with many metals is a well-known fact; in short, it permeates organic as well as inorganic nature.

Though a component of the human body and of its nutriment, it is, like all other elements, in its free state and by itself a drug or medicine in its relation to the animal body, and one of the

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* Transactions Am. Inst., 1871.

† Lehmann, Physiol. Chemistry, I, 307.

greatest importance in the Materia Medica. It was known to Moses, it is said, and Homer calls it the "remedy of evil," as the learned Bœnninghausen reminds us in a note in his monograph on hooping-cough. Sulphur has been used empirically for many chronic, cutaneous, and internal diseases, for many centuries; but like all other useful medicinal substances, it was lost sight of and again resorted to, as fashion or fancy dictated in the absence of a guiding principle. When that was found, it led to scientific methodical investigation of the relation of drugs to the animal body. Hahnemann in his "Chronic Diseases," furnishes us with the first reliable proving, consisting of the observations made by himself, added to which are very carefully selected observations of others.

In 1859 there appeared in the first and second volume of the "Zeitschrift des Vereins Homœop. Ærzte Wiens," a re-proving of Sulphur, which, without stretch of imagination, corroborates Hahnemann's proving.

Sulphur is not, like many others, a substance that exhibits its effects upon the animal organism very rapidly; it requires cautious observation and more time for the recognition of its influence. Some would even place it among inert substances. This, however, is an error, as we have repeatedly discovered. Having had occasion to take medicine for some indisposition, Sulphur was selected as the remedy; but not trusting the higher dilutions, ten or fifteen drops of the fifth centesimal dilution were taken, at intervals of six or eight hours. This was followed by very decided and protracted symptoms, entirely disconnected with those for which the Sulphur was intended to act as a remedy.

The morning after the last dose, there appeared an excessive rawness in the throat, with inclination to cough, and with pain during the cough. Marked hoarseness and rawness of the air-passages at and around their bifurcation lasted for more than two days, accompanied by heat, fulness and pain in the chest, with febrile exacerbations. All of these symptoms were entirely new, and till then not connected with the affection for which Sulphur was taken. This is introduced here as evidence of the power of that medicine to produce acute effects with great promptness. We

propose to give below certain indications for the use of Sulphur in some acute diseases.

FEVER.

The indications* herewith given for *Sulphur* were taken from cases cured, and will be found to correspond with the known pathogenesis of that medicine, of which an abstract will be furnished below for the sake of comparison.

Sulphur is indicated in fever of the continuous remittent type, occurring principally in the autumn and winter. These are characterized by a period of rigors of various intensity preceding the heat, and seldom reappearing afterwards. The chills are of a remittent character. The whole period may last only half an hour, or they may appear in paroxysms for a whole day, accompanied by thirst.

The more severe the chills, so much more intense will be the paroxysms of subsequent heat; they may last for days, or even for weeks, if unchecked. There may be from five to seven paroxysms of dry heat in twenty-four hours, during which the pulse is very rapid, rising to 160, more or less, in young patients, and to 130 in adults. The paroxysms of heat are most intense toward evening and the earlier part of the night; with sweat after midnight, attended with relief. There is thirst and dryness of the mouth, relieved by small quantities of water frequently repeated.

We also observe headache and restlessness at night; frequently delirium; great prostration, generally in proportion to the acceleration of the pulse, the frequency of which, if not made to abate by other remedies, has often by itself served as a reliable indication for Sulphur.

A jaundiced appearance of the skin and dryness of the tongue, with or without a yellowish-brown coating down the middle, are very characteristic of Sulphur, but particularly the craving for acids and acid drinks.

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* A portion of this article was published in the *New England Medical Gazette*, March, 1873, p. 117.

Cases of continuous remittent fever for which Sulphur is the indicated remedy, may vary from light cases to the most severe, assuming a typhoid character and even that of typhus. In the latter forms there frequently occurs a symptom which we have found to be a highly marked indication of Sulphur. The patient is very dull of mind and very slow to respond to questions, which he appears not to have noticed, and which he is very slow in answering; this occurs in fevers of a torpid character. A case of this kind has been described in the *American Journal of Homœopathic Materia Medica*, vol. ii, p. 49, No. 5.

Whenever the febrile symptoms of an inflammatory disease, whether of continuous remittent fever, pneumonia, or the febrile diseases following parturition, &c., are of the character above described, Sulphur pre-eminently among other remedies promises speedy relief.

The Pathogenesis of Sulphur.

For the sake of comparison we subjoin the symptoms produced by Sulphur as related to "Fever," as contained in "The Chronic Diseases." These will show that the foregoing indications, carefully and exclusively collected from actual cases, correspond with those which Sulphur is capable of producing. For this purpose we separate the symptoms into five parts.

1. THE CHARACTER OF THE FEBRILE PAROXYSMS.—This in its perfection consists of *chills and rigors, often very severe; then heat, then perspiration.* Chills and heat rarely alternate, and rarely heat precedes the chill. The chills may last two hours or much longer (second day) before the heat commences. The heat may appear in flushes, *but when well marked it is dry.* Perspiration occurs in the morning, mostly about the head.

2. LOCALITY.—The chills may be internal only, or may occupy the whole body; again, they may be felt only in the back. The heat becomes perceptible by the redness of the face; it also may be only internal.

3. ACCOMPANYING SYMPTOMS.—*Thirstlessness during the chills* is marked, the contrary condition is rare. *Accompanying the heat there is marked thirst,* vertigo, great weakness.

4. THE TIME OF THE OCCURRENCE OF CHILLS is the *evening*

from about five to eight o'clock. They may also begin in the afternoon, rarely occurring in the night or morning. It follows accordingly that the hot stage sets in later, *occupying the night,* stretching into the morning hours till noon. It is not necessarily followed by perspiration each day, for the heat may last several days before any perspiration appears, which will be likely to happen only in the early morning hours.

5. The conditions are, according to very few pathogenetic symptoms, that the chills extend from the toes upwards along the back, and that they are alleviated by the warmth of a stove.

CLINICAL CASES OF FEVER.

I. Aug. 13th, 1872. L. H., a boy aged ten, had been sick nineteen days, the disease having commenced with diarrhœa. He was quite unconscious for five days, lying in sleep perfectly still; pulse 135–140, small and hard; no exanthematous spots nor sudamina then visible. The febrile aggravations were very indistinct, being recognizable only by periods of restlessness and screaming of the patient, who was quieted by a little water. The mouth was closed and the jaw rigid; teeth and tongue were coated with sordes; the stiffness of the jaw was caused by inflammation and gangrenous sloughing of the buccal mucous membrane, while bloody and horribly offensive ichor ran from the lowermost corner of the mouth; when spoken to, the patient gave only sluggish and feeble signs of recognition.

August 14. Phosphoric acid having been administered in vain, Sulphur[30] was given in two or three doses, in pellets. The next day the pulse had fallen on an average ten beats; on the 17th the pulse averaged 100, with perceptible general improvement. In two days more, the pulse was 95; the skin comparatively cool, the patient decidedly better, his countenance and gestures being indicative of consciousness; but yet he was unable to speak, owing to the ulcerative process in his mouth.

This ended the case so far as Sulphur was concerned. Yet it may be of interest to mention that the stomatitis was rapidly improved by Mercurius cor.[20], and subsequently by rinsing the mouth with water in which about two teaspoonfuls of charcoal

powder had been mixed. This completely removed the remaining offensive odor, and enabled the patient to take and taste his food. He was well on August 25th.

II. August 15th, 1872. Mr. F. H., aged 25. Had continuous remittent fever of a typhoid type for one week; he was brought home from the country on this day, one hundred miles by railroad and stage. Pulse 100, skin hot, headache; his tongue was red and dry, with much thirst; no pain in the ileocæcal region; constipation.

August 19th. Bryonia had been given without relief; patient is better in the morning, but dull and heavy most of the time; chills are not perceptible, but there is heat every afternoon and evening. From this day onward, one dose of Sulphur^{80} was given every morning during the remission. On the 21st a decided improvement was perceptible. No more medicine was given, and the patient was quite convalescent on the 26th.

III. September 1st, 1872. G., servant girl, aged 20, took cold yesterday; cheek swollen and painful; general fever of continuous remittent type now prevalent. Pulse 100, and quick; much heat, preceded by chills.

Belladonna and Hepar were of no benefit. After Rhus the swelling of the cheek disappeared. On Sept. 4th, being the fifth day of the fever, there was no improvement. There are no more chills, some heat in the morning, but more in the evening and night, some thirst. Prescribed Sulphur^{80}, in two doses.

September 5th. The patient was decidedly better; and Sept. 6th, had recovered entirely without further return of her fever.

IV. November 14th, 1872. Mr. C. E. P., aged 30. Had continuous remittent fever of the prevalent type for three weeks; pulse 94; great weakness; flushed face; entire loss of appetite. The fever had assumed a torpid character; the patient was very dull of mind, and very slow to answer questions. The aggravations occurred distinctly in the evening; the nights were spent in restlessness, with much heat and thirst. Bryonia and China, used during the first days of treatment, were of no benefit, the pulse having increased in frequency. On November 17th (the fourth day of treatment and about the twenty-fourth of the disease), prescribed Sulphur^{80}, in two doses.

On September 18th there was a decided improvement in the condition; the pulse was much slower, and the febrile heat in the evening much less; the night was passed in sleep. On the 19th the pulse was only 76; fever scarcely perceptible the previous evening. Improvement progressed uninterruptedly, and the patient was well on the 21st.

V. August 24th, 1866. W. L., aged 19. Very tall and thin, scrofulous, and with phthisical symptoms strongly developed, had for three days many rigors after exposure to cold; then moist skin followed by violent heat in the morning, occasionally alternating with perspiration; much thirst. Aconite gave relief; subsequently Phosphorus relieved the soreness in chest, the reddish-yellow expectoration, and the cough; but the pulse continued to be very rapid, with evening exacerbations of heat, for which Sulphur^{200} was prescribed, Sept. 2d. The result was a very marked diminution of the pulse and the febrile paroxysms, Sept. 5th, and a return of the usual health of the patient, Sept. 11th; *i. e.*, of incipient consumption, to which the patient succumbed in about two years from that time.

VI. March 11th, 1866. Mrs. St. H., aged 66, had been sick for one week with fever of a typhoid character, accompanied by diarrhœa. China relieved this condition, but the febrile exacerbations, with rapid pulse and prostration, remained, and Sulphur^{100}, one dose, was given on this day.

March 12th. Much better; perspiration and moist skin; the pulse is soft and slower. March 16th. The improvement still continued, and was still more marked.

Treatment discontinued.

VII. Feb. 12th, 1872. Mrs. D., aged 60. Had been sick with febrile symptoms for five days, and under the influence of violent emetics and cathartics, ruthlessly administered by a hurried though eminent physician. Phosphorus and then Bryonia were necessary to relieve a superinduced train of gastric symptoms, obscuring for the time the original fever, which then presented itself in the continuous remittent type; the period of chills had passed, but about four times in twenty-four hours there were paroxysms of heat, lasting two or three hours; the skin was yel-

low; the tongue dry, with eructations of wind, and a craving for acids. The pulse was 100.

This was the condition on Feb. 15th, when Sulph.[80], two doses, was prescribed. Feb. 16th. The improvement was marked and the patient anxious to get up, which, however, was not permitted until Feb. 20th.

VIII. Aug. 27th, 1872. Mrs. E. H. G., aged 55, who having attended a sick relative had much care and anxiety, and had a febrile affection now for ten days. There were marked remissions and exacerbations of heat, occurring at irregular times; the pulse ranged from 100 to 110; severe headache in vertex occurred principally in the afternoon, soon after twelve o'clock; appetite moderate. There was some cough and palpitation of the heart. Ignatia, Nux, Belladonna and Spigelia were followed by no relief.

Sept. 1st. Though there were no symptoms especially indicative of Sulphur, two doses were given, and on the next day improvement was reported by the patient for the first time. The headaches lessened, as well as the frequency of the pulse, and the patient was discharged quite well on the 8th. The above case, considered by itself, is a weak one, but in connection with several others may take its place at the end of the list.

For the sake of bringing into nearer view the nature of the cases, as well as the result of their treatment, the following tabular arrangement is appended.

Tabular Arrangement of Cases of Continuous Remittent Fever.

Number of cases.		Sex.	Age.	Days of sickness before treatment.	Days when Sulph. was given.	Day when improvement was first seen after Sulph.	Number of days under treatment.	Number of days after Sulph. to recovery.
1	Typhoid type; torpor; sluggish responses to questions; pulse 140, ...	M	10	19	20	1st	12	11
2	Typhoid; dry heat with evening and nocturnal aggravations; pulse 100 during heat; thirst; headache, ...	M	25	7	11	2d	11	7
3	Light case; chills then heat; pulse 100; nocturnal aggravations, ...	F	20	2	5	1st	5	2
4	Typhoid; torpor; sluggish responses; evening and nocturnal aggravations; thirst; pulse 94.	M	30	21	24	1st	7	4
5	Phthisical patient; very rapid pulse (100) for days; typhoid,	M	19	3	12	3d	18	9
6	Typhoid; rapid pulse. (Case not well marked), ...	F	66	7	7	1st	5	5
7	Typhoid; gastric disturbance; 4 paroxysms of heat in 24 hours; nocturnal aggravation; yellow skin; thirst for acids; brown tongue, ...	F	60	5	8	1st	8	5
8	Remittent headache; frequent pulse and quick, ...	F	55	10	15	1st	12	7
	Average, ...				12¾		9¼	6¼

It is a matter of regret that the list of cases is so small. We would, however, propose this form of stating cases as the most convenient, both for the purpose of giving a synopsis of indications leading to the choice of a remedy, as well as to show the result upon age, sex, and the course of the disease, the generic character of which is expressed in the general heading. This tabular form is intended to show, besides the sex and age of patients, the length of time that elapsed before treatment, as shown in the third column. The fourth column indicates the day of the disease when Sulphur was first given. By subtracting the figure in the *third* column from the opposite figure in

the *fourth* column, we find the number of days which passed without improvement, during the use of other remedies. The fifth column denotes the day when decided improvement was first noticed after Sulphur was given. This we consider of prime importance. Improvement of symptoms is all we can expect at first after a remedy. Actual recovery, and mutual release of patient and physician may not occur for a variable number of days afterwards, and actual recovery, though decidedly progressing after the use of a remedy, may be nevertheless protracted. If, therefore, we were to test the efficacy of a remedy exclusively by the number of days elapsing after its administration, we might not obtain a fair view of its efficacy. The first question therefore is: How soon after a remedy did permanent improvement begin?

In six out of eight cases we find the commencement of permanent improvement to have been noted on the day after the prescription of Sulphur; but actually the patients had begun to improve twelve or fourteen hours after the remedy, and before the next visit; so that this improvement had frequently commenced immediately after the remedy. This is precisely what we should expect of the appropriate remedy in a given case. If it is the correct one, improvement should set in at once, however slight it may be; but actual recovery may require days in acute cases, and weeks or months in chronic ones. This we conceive to be Hahnemann's meaning when he insists on awaiting the effect of remedies. He also expected immediate improvement from a correctly chosen remedy, but he demanded the utmost patience in awaiting actual recovery, which is too easily disturbed by trying to hasten it.

Notwithstanding our proposition to judge of the effects of a remedy by the time when improvement is first noticed, the actual number of days required for entire recovery is far from unfavorable, as may be seen by *column six*, showing the whole number of days consumed by treatment,; while *column seven shows the number of days elapsing from the time when Sulphur was given to actual recovery.*

To strike an average in so small a number of cases, furnishes no very satisfactory result; it shows, however, that the average

duration of such cases, before Sulphur was given, was 12¾ days, and that it required an average of 6¼ days for recovery after the first dose of Sulphur had been administered.

DIARRHŒA AND CHOLERA INFANTUM.

The following symptoms occurred in cases actually cured with Sulphur, and exhibit the relations which that medicine bears to certain diseases of the intestinal canal, especially that termed cholera infantum. This is characterized by frequent and copious discharges, consisting first of liquid fecal matter, soon losing its yellow color, and appearing as greenish, slimy, or serous fluid in severe cases, leaving only a pale, greenish stain upon the napkin; at this stage causing much excoriation of the anus. The diarrhœa may be accompanied by some indications of griping, but is generally painless, passing without visible effort in the case of infants, and known only by the gurgling sound. In older patients the discharges are ushered in by frequent desire, rather than by acute pain, in cases requiring Sulphur as a remedy.

The discharges may occur at the rate of twenty in twelve hours; twenty in twenty-four hours is not uncommon, especially in the heat of summer; they are most frequent in the early morning hours. The disease may progress so rapidly that it is difficult or impossible to discern such periods of aggravation as are generally observable in milder or more protracted cases. There was little or no vomiting; the stage of "gastric catarrh" sometimes preceding cholera infantum having passed, or having been superseded by the intestinal discharges in the cases furnishing these indications. Thirst was not excessive, though the children liked water and drank frequently; at other times small mouthfuls of their usual milk and water or gruel satisfied them.

A comparison of the above symptoms with those of Hahnemann's collection will readily disclose the similitude.

Pathogenesis of Sulphur.

Diarrhœa like water every half hour, after painless rumbling in the bowels. Thin bilious stool, with cutting pain in abdomen every morning, or involuntary bilious stool (painless), as if flatus were to pass. Rapid involuntary stool, so that the patient has

not time to reach the vessel. Stools in children, with bloody, brown, and green slime. Frequent (six) discharges causing faintness. Vomiting of a watery clear liquid. Sour vomiting after eating.

The time of aggravation is decidedly in the morning hours.

CASES OF DIARRHŒA CURED WITH SULPHUR.

I. Jan. 31st, 1866. Miss C. E., aged 18, had diarrhœa for one week, especially in the morning, when the desire to go to stool was sudden and urgent. Prescribed one dose of Sulphur^{200}.

On Feb. 2d there was no more diarrhœa, and none subsequently.

II. July 27th. G. G., a boy aged 10, had an attack of vomiting about ten days ago, and diarrhœa since that time at the rate of about four discharges a day; the evacuations occurred mostly in the early morning; they were very thin and of light-yellow color; there was colic, sometimes followed by vomiting. Prescribed one dose Sulphur^{200}.

July 29th. The patient reported that four hours after the medicine there had been no more discharges, and that he was to all intent and purpose well.

III. Aug. 20th, 1866. E., an infant, 22 months old, and teething, had diarrhœa for three weeks, for which paregoric and lime-water, &c., had been used from the beginning. At this stage there were twenty discharges a day of greenish-yellow mucus, without pain; no other symptoms were noted. Omit opium and lime-water; prescribed Camphor^{1m} F.

Aug. 22d. Slightly better, though the child had seven or eight thin yellow discharges in the night. Prescribed Sulphur^{22m} F., two doses.

Aug. 26th. The child had but two, very natural, discharges daily since Aug. 23d.

IV. Aug. 28th, 1866. E. P., 4 years old, had diarrhœa four days, especially in the night; the discharges are thin, yellow, and accompanied with colic. Prescribed Sulphur^{200}, two doses.

Aug. 30th. Quite well since Aug. 29th.

V. Aug. 10th, 1872. B., a boy, aged 1 year, had an attack of diarrhœa; there were ten discharges in seven hours, consist-

ing of yellowish water at first, but assuming a greenish appearance toward evening; the weather was extremely damp and sultry. Prescribed Veratrum[20] in water.

Aug. 11th, 7 A.M. The child had twenty discharges in twelve hours during the night, more frequent toward morning, and consisting of green, slimy, watery fluid. He took his usual food in small quantities of milk and arrowroot, with water. Prescribed Veratrum[3] in water. At 5 P.M. he was worse; the eyes were sunken, the child lay very still and apathetic, while the discharges occurred every half hour. Podophyllum[3] was given. At 10 P.M. there was no change for the better, and collapse imminent. Prescribed Sulphur[30], three doses about three hours apart.

Aug. 12th. There was marked improvement; he had only four discharges in the night, and only one or two more during the day; the following night there were only two discharges, of natural color, though still rather thin. Rapid convalescence followed without another prescription of medicine.

For the sake of convenience the following tabular statement is subjoined:

No. of case.		Sex.	Age.	Duration before treatment.	Day when Sulphur was given.	Day when improvement was first seen after Sulphur.	No. of days under treatment.	No. of days after Sulphur to recovery.
1	C. E. Sudden and urgent desire in the morning, ...	F	18	7	7	1st	2	1
2	G. G. Vomiting, thin discharges in the morning early, ...	M	10	10	10	1st	2	2
3	E. Discharge frequent, painless, of greenish-yellow mucus, ...	(?)	22 mo	21	23	1st	6	4
4	E. P. Thin yellow discharges, with colic in the night, ...	M	4	4	4	1st	1	1
5	B. Cholera infantum; serous, greenish, frequent, painless discharges, .	M	1	1	2	1st	3	3

PNEUMONIA.

Unquestionably Sulphur is applicable in cases of pneumonia, where the condition of the lungs and bronchi furnishes the indications which we interpret from the known pathogenesis of Sulphur to be as follows: Dyspnœa of a spasmodic kind, with periodical sensation of constriction; respiration is accompanied by wheezing, whistling sound; the sense of suffocation may be intense, accompanied often with stinging pains in the back. The left lung is mostly the seat of pain, in the form of stitches. There is acute congestion of the lungs, characterized by heaviness like a lump pressing upon the chest, with a sensation of throbbing, and also palpitation, with stitches and cutting pains. The cough is short and dry, sometimes with a crackling sound in the chest; it attacks the patient just as he is about to fall asleep.

The *locality* mostly affected is, as a rule, one side only.

The *time* of aggravation of the pneumonic symptoms is not so clearly marked in regard to the chest symptoms as in those of the fever to be described below; but it appears that the night, and especially midnight, are the principal times of exacerbation of dyspnœa, congestion, and pain, as well as of the cough.

The *conditions* under which the symptoms are most apparent in light cases are: while walking out of doors, while speaking, bending forward, and asleep, during which the dyspnœa, as well as the cough, may appear suddenly.

In cases not complicated with febrile excitement, the above indications will have to be our only guide. But in febrile cases, especially if very acute, the character of the fever, that is, the peculiarity of the chill, the subsequent heat, the perspiration, and the time of occurrence of these stages, form much safer guides, not only in the selection of Sulphur but in that of any other remedy.

We need only repeat here that in acute febrile pneumonia, we should be governed by precisely the same indications described under "continuous remittent fever." The following cases may serve as illustrations:

Dec. 16, 1872. Mr. T. L., æt. 18. Very healthy and strong, had been sick for a week with headache and general discomfort;

three days ago he had several chills, lasting till afternoon; at that time intense heat began, increasing in the evening, with headache and thirst, calling for frequent mouthfuls of cold water. The night was spent in great restlessness; the pulse in the morning, after the heat had subsided somewhat, was 112; during the heat it was 130. The paroxysms of heat came every two hours, without any more intervening chills. Congestion of the lower half of the left lung, and the lower two-thirds of the right lung, was very distinct. Dyspnœa very marked, with short, troublesome cough. Bryonia[6] gave no relief.

Dec. 17. All symptoms worse; the patient very anxious and distressed for breath. Prescribed Sulphur[80], three doses, at intervals of three hours.

Dec. 18. Pulse 72 this morning; he had less severe paroxysms of heat last evening, during which the pulse was 112; he slept much more. The respiratory murmur was becoming audible in the inferior lobe of the right lung; tongue moister.

From this time the febrile paroxysms diminished, coming at first in the morning and evening, then only in the evening; so that by December 21st the patient was quite convalescent. As the fever subsided the dry, hacking night-cough was very distressing, for which Phosphorus proved to be very speedily curative.

Two other cases of pneumonia, of great severity, in which convalescence speedily followed the exhibition of Sulphur, were published in the American Journal of Homœopathic Materia Medica, vol. ii, No. 5, p. 49.

APHONIA.

A fourth form of disease, in which Sulphur was proved to act with very favorable results, is loss of voice in connection with catarrhal laryngitis, which is very apt to be associated with complete voicelessness in nervous or sensitive women.

The pathogenetic effects pointing to the relation which Sulphur bears to the larynx and vocal organs are few, but well marked. They are: great hoarseness, harsh voice, gradually ending in complete loss of voice, which in persons predisposed to it may last for many days, and even for weeks, if left to itself.

Together with the aphonia there often is a troublesome cough, which either sets in the moment the patient falls asleep, thus causing great annoyance, or it wakes the patient by coming on only during sleep; the cough is not troublesome during the day, or while the patient is awake.

Cases of Aphonia.

I. Jan. 28th, 1872. Mrs. B., aged 30, tall, slenderly built, and subject to coughs, had taken cold, and had been coughing for several days; the cough was attended with hoarseness, resulting in complete loss of voice; the tonsils and pharynx were congested and swollen; Belladonna[6] was given without effect. There being no change the next day, Sulphur[30] was prescribed, in three doses, one to be taken each morning and night. January 30th, the voice was found to have been restored, and remained so. The severe tickling cough, which unfortunately did not yield to Sulphur, and which continued to trouble the patient at night, coming on in long paroxysms, was relieved in twenty-four hours by a few doses of Iodine.

II. Aug. 15th, 1872. Miss M., aged 35, sensitive and of delicate health, though not subject to disorders of the air-passages, had been suffering for several days with sore throat, hoarseness, and finally with total loss of voice, after exposure in cool, rainy weather. Rhus[20] afforded no relief. On the 16th, the voicelessness continuing, Sulphur[30] was given, in two doses, to be taken about eight hours apart. On the following day the voice was found to have been restored, and the remaining huskiness disappeared in a day or two more.

III. Sept. 19th, 1872. Mrs. S., aged 40; slender, nervous, but of good health and constitution, had for one week increasing laryngeal catarrh; she spoke first in a hoarse whisper; now complete aphonia. She "took cold" last August, by bathing in the sea too often and too long; menses disturbed, colic, some diarrhœa, and paroxysms of heat and flushes. Taking the voicelessness and catarrhal symptoms chiefly into consideration, three doses of Sulphur[8] were given, to be taken night and morning.

In two days Mrs. S. reported herself in a loud voice, and the catarrhal condition was subsiding.

ACUTE RHEUMATISM.

It is well known that in former years Sulphur was much recommended and used by the old school as a remedy in chronic rheumatism. But it deserves to be more frequently resorted to in the acute form of the disease than has been the case hitherto. Acute rheumatism, to be relieved by Sulphur, should present febrile symptoms like those previously described. The cases in which Sulphur proved efficacious were quite severe, especially the inflammation of the joints, showing much redness, swelling, and excruciating pain as usual. The character of the pain is that of a severe sprain. All joints may be successively attacked, *but the most characteristic peculiarity of cases curable by Sulphur is, the commencement of the affection in the lower joints, thence gradually passing to the upper ones;* all pains are decidedly worse in the night.

Pathogenesis of Sulphur.

Cramp-like pains, or as if the parts were bruised and swollen. Stiffness; pain as if the parts were sprained or wrenched. Tearing and twitching pain. (A symptom that causes sufferers from acute rheumatism great agony, is the muscular twitching occurring during sleep.)

The localities principally affected are, the left ankle, hips, in which the pain is deeply seated, or the tearing pains run from the heel to the thigh, and from the knee to the crest of the ilium; next in order the wrist, elbow, middle joints of the fingers, and shoulder, may be affected by pains of the sprain-like or tearing variety. The left side is particularly affected.

The conditions under which the pains occur are, motion, such as walking, stepping, &c., and by using the muscles in standing, though the tearing and sprain-like pain also occurs while lying down and in sitting.

The night and evening are the principal times of aggravation, and lastly, the pains begin in the lower limbs and joints first,

and extend upwards; the same is the case with the febrile rigors, which pass from the toes upwards, or up the back.

I. The following case may serve as an illustration. April 23d, 1872. Miss B., aged 23, blonde and florid, generally strong and well, had at this date been afflicted with acute rheumatism about sixteen days. The rheumatic inflammation began in the feet, having affected successively all the joints upwards; there still was much fever, with chill in the forenoon, heat at night, thirst and perspiration. The left foot was swollen, with rose-colored redness, excessive pain on moving, and much thirst. Bryonia, which seemed to be strongly indicated (except by the fever), gave no relief. At this date Sulphur[80] was given, in two doses. On the next day a general though slight improvement was visible, still more perceptible on the 25th. The improvement continued uninterruptedly for four days more, when there was a slight return of chills and pain, but the pulse continued natural and soft. Two more doses of Sulphur were given, after which improvement again progressed uninterruptedly to perfect recovery, May 9th. It is again to be noticed here, as well as in the following case, that, although about fifteen days were required for entire recovery, the improvement began directly after the remedy, which is all we ever have a right to expect.

II. Feb. 18th, 1873. Mr. H. A. R., aged 30; had been sick for eight days; after severe exposure he had tonsillitis, resulting in suppuration of both tonsils successively, which instead of ending in recovery, left the patient affected with articular rheumatism of a severe degree. The left foot and then right hand became affected; the pain was excruciating, though swelling and redness were slight at first, increasing afterwards; the fever soon rose to a high degree of heat after the first rigors were over, and continued with slight remissions. The tongue was dry and brown, thirst excessive, occasional sweat, and yellow skin. The pulse rose to one hundred and higher.

Bryonia gave no relief in this case; and recalling the result of previous cases, Sulphur[80] was given.

February 22d. The next morning, already the patient reported an improvement, being free from pain; from this day forward there was a gradual but uninterrupted improvement,

especially in regard to the pain and swelling, which did not extend to other joints, but subsided in the locality originally affected. The medicine was repeated on the 24th, and finally on the 28th, at which time the patient was quite convalescent, requiring no more medicine.

CONCLUSION.

It is to be observed that a variety of potencies were used in the foregoing cases. Lehrmann's 200th was used frequently; Fincke's were used once; but the 80th potency of Sulphur prepared by the writer was used most frequently. The use of high potencies became more frequent about the year 1858. Many new advocates arose in their behalf at that time, while many others were strongly opposed to their introduction; the discussions which arose concerning these potencies, made it the imperative duty of every one to determine their value for himself. This led to the trials here recorded; they were not undertaken for the purpose of establishing or proclaiming *à priori* their superiority over other potencies, but rather to ascertain what might be expected from them. Theoretically, there scarcely existed a doubt as to their efficacy; but it was desirable that individuals should test them practically, notwithstanding the earnest recommendations of eminent authorities in their favor or in opposition to them.

The cases here reported were strikingly successful; and it is but fair to state that failures also occurred. The question also arises, whether these cases would have been equally successful had lower potencies been employed in their treatment? Or, in other words, would they deserve to be regarded as worthier of report, had low instead of high potencies been used, and credited with the result? The conclusion we have arrived at is, that homœopathy rests neither on high nor on low potencies; but rather upon attenuation in its broadest sense, as following with logical consistency from the maxim of *Similia similibus curantur*, which is thus far the most practical rule known to us concerning the administration of medicines in disease.

We now use the lower potencies often, and rejoice in results quite as favorable as those following the higher and highest

potencies. In either case we are in the habit of obeying one of the first and most important of Hahnemann's directions, to correct all errors in diet and habits, as well as to reject all injurious medication. When this is done, and not till then, it is fair to expect results from medicines, or to attribute favorable results to them.

Furthermore, the dose as well as the potency are still open questions. To discover the nature of a disease, and to find a remedy, are easy tasks in comparison with that of determining the quantity (potency) and the frequency of its repetition. Could the latter condition be fulfilled as readily as the first two, our success would be far more appreciable and less frequently doubtful than it is. As a rule, infrequent repetition of doses, whether of high or low attenuations, leads to more rapid results than frequent repetition, even in acute cases; and though it is perfectly proper to repeat doses, favorable results, if any, always follow the first two or three doses.

XLIV.

VERIFIED SYMPTOMS.

A FEW PATHOGENETIC AND CLINICAL OBSERVATIONS.

By Wallace McGeorge, M.D., Woodbury, N. J.

Some three months ago, I informed Dr. C. Wesselhœft, Chairman of the Bureau of Materia Medica (in answer to his interrogation), that I would present a proving of one of the new remedies as my contribution. But unfortunately seven of my provers have as yet sent me no report, and I must perforce postpone the presentation of the proving until the next meeting of the Institute.

In lieu then of a proving, I send a short paper on the symptoms of our remedies, pathogenetic and clinical, that have presented themselves more particularly to my attention, principally as verifying symptoms already found in our Materia Medica.

Arnica montana.—Urging to stool, followed by copious, loose stools repeatedly during the day.

Arnica montana.—Urging to stool, with passage of slime and mucus only.

Arnica montana.—Bearing down at stool with considerable urging, followed by a slimy passage. (All resulting from administration of the 200th potency in a mechanic enjoying good health.)

Arnica montana.—Inflammatory swelling of testicle; hardness of the bed on which he lies, causing a soreness of whole body; great tenderness of testicles. (Occurring in metastasis from

parotid gland during mumps, in two boys and a middle-aged man; cured in two and three days by the exhibition internally of the 200th potency.)

Arsenicum album.—Inflammation and swelling of testicles, accompanied with great uncontrollable restlessness, and an indescribable anxiety, preventing the patient from lying down. (Occurring in metastasis from parotid gland in mumps; cured in five days; relieved in twenty-four hours; concomitant symptoms removed in forty-eight hours, but the induration did not disappear under five days.) 200th potency used.

Agaricus muscarius.—Twitching of the head and cervical muscles, worse on the right side, in a woman pregnant over eight months.

Agaricus muscarius.—Twitching of the head, of the orbicularis palpebrarum and orbicularis oris, following a nervous sick headache, with imperfect speech, can hardly articulate; in a woman pregnant over eight months. (One dose of the 200th was exhibited immediately on the tongue, at 11 o'clock P.M. Before midnight the convulsive movements ceased, and *Belladonna*^{200} promptly removed the headache which set in immediately after the convulsions stopped.)

Bryonia alba.—Anxious, almost impossible breathing, from stitches in the pectoral and intercostal muscles, worse on the right side, obliging her to sit erect, at other times drawing her head down towards right breast.

Bryonia alba.—During every inspiration, stitch in pectoral and intercostal muscles, sometimes striking into lung.

Bryonia alba.—Lancination during an inspiration.

Bryonia alba.—The duration of the lancination corresponds to that of the inspiration. (In a case of pleurodynia rheumatica, occurring in a woman aged 52 years, *Bryonia*^{6} relieved partially in one hour, dose, a teaspoonful every fifteen minutes until better; entirely removed in four days.)

Cicuta virosa.—Eruption at corner of mouth, with a reddish base, succeeded by a yellow honey-colored crust.

Cicuta virosa.—Eruption beginning at corner of mouth, in three days spreading over face, ears, and hands, in two days more appearing on breast, resembling erysipelas, gradually form-

ing a yellow honey-colored crust, with burning and itching, unaccompanied with fever, and without loss of appetite or general health. (Cured by Cicuta, 200th, in one boy in five days, in another boy in twenty-one days.)

Hamamelis Virginica.—Sore pain in head of right humerus (glenoid cavity), continuing for hours.

Hamamelis Virginica.—Soreness in head of humerus extending down the arm to elbow-joint, continuing for days. (Observed while proving the third attenuation, by Dr. I. B. Chantler, of Alleghany, Pa., who cured two cases of rheumatism in the Homœopathic Dispensary at Pittsburg, Pa., having these symptoms, with the same potency. Observed also by the writer in a proving made five years ago.)

Hyoscyamus niger.—Does not know her relatives. Highest mental derangement. She talks incessantly and hurriedly. She tears her clothes off, locks herself in a room, and runs and stands at the window for fifteen minutes entirely naked. Dresses herself in her bridal dress and asks if she does not look pretty; in half an hour she bites herself while the dress is on, and endeavors to tear it off her; tears her underclothing in pieces, and has to be held in bed by force; becomes wild and furious, strikes and kicks her husband and mother. Desire for an embrace; would compel her husband to go to bed with her if she could (thirteen days after parturition). (Occurring in a case of puerperal mania, ten to fourteen days after delivery, following an excessively happy religious mania which lasted five days, for which Sulphur had previous been administered. *Hyos.*, 200th, entirely removed this frenzy in five days, and she became rational in ten days, excepting that she talked a little more than usual, and liked to refer to how bad she had been and how foolish she had acted while in mania. In three weeks after confinement, was able to do part of her housework and ride out every day.)

Kali bichromicum.—Deep excavated ulcer on hard palate, with smarting and burning, accompanied with indistinct articulation; resulting from syphilis contracted twenty-three years ago. Relieved by *Kali bich.*, 200th.

Nux vomica.—Paralysis of the bladder with dribbling of

urine. (Cured by the tincture after the 200th had been given for several days without avail.)

Nux vomica.—Painful, ineffectual desire to urinate. Frequent inclination and urging to urinate, without voiding any urine. (From the 200th potency.)

Nux vomica.—Complete paralysis of bladder; urine had to be drawn off with catheter. (In five days, after giving the tincture could pass a little urine; in fourteen days dispensed with the catheter altogether—in an old man, aged 78 years.)

Petroleum.—Six or seven yellowish watery stools in daytime, without any stool at night, or only one stool from sunset to sunrise. Soft stools attended with considerable straining. (One dose of the 200th given to a child ten weeks old, stopped the passages altogether for twenty-four hours, and removed the trouble for several days.)

Tartarus emeticus.—Unusual oppression of the chest. The inspirations are very far apart. The heart almost ceases to beat. No pulse; heart's action imperceptible; child would gasp convulsively and appear to be gone; in twenty seconds another gasp, followed by a deathlike stillness and imperceptible pulse; child lies flabby and motionless in father's arms. (In a child six weeks old, troubled with infantile pneumonia, following an attack of catarrh of the bronchia, from which the child had not recovered. A few drops of water in which some of the 200th had been dissolved, put on the child's tongue every minute for five minutes, then every five minutes for half an hour, rallied the child in less than an hour; complete restoration to health ensuing in eleven days after its exhibition.)

SECTION III.

REPORT

OF THE

BUREAU OF CLINICAL MEDICINE.

HENRY B. CLARKE, M.D.,	Salem, Mass.
E. C. BECKWITH, M.D.,	Zanesville, O.
W. H. HOLCOMBE, M.D.,	New Orleans, La.
HENRY D. PAINE, M.D.,	New York.
N. A. MOSMAN, M.D.,	Norwalk, Conn.
L. E. OBER, M.D.,	La Crosse, Wis.
R. F. BAKER, M.D.,	Davenport, Iowa.
J. C. BURGHER, M.D.,	Pittsburg, Pa.
GEORGE A. HALL, M.D.,	Chicago, Ill.

TO THE

TWENTY-SIXTH SESSION

OF THE

American Institute of Homœopathy.

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XLI.

PRACTICAL REMARKS ON PULMONARY CONSUMPTION.

By William H. Holcombe, M.D., New Orleans, La.

Referring to my books and records I have received 127 cases of pulmonary consumption, which I have treated wholly or in large part during the last twenty years. I have excluded as carefully as I could many cases of apparent phthisis, but really chronic pneumonia, or chronic bronchitis, wanting the tubercular element. I have excluded cases occurring in the negro race, because the record was not kept with sufficient precision. I have excluded those transient cases of Northern visitors which we see every winter, but of which we get only a casual view and a brief history. I have also excluded all cases of tuberculosis occurring in young children.

Only 127 cases in the white race, in the practice of a very busy physician, during a period of twenty years! It suggests the idea that pulmonary consumption is not a prominent disease of this latitude, and that is true. Although New Orleans gives statistically a pretty high rate of mortality from consumption, a great number of the cases come here from other points to die, and a large percentage of the remaining deaths is chargeable to whisky more than to tubercle.

Of these 127 cases, 85 were males and 42 females. Undue alcoholic stimulation, with greater exposure to morbid influences, accounts for this excess of the masculine element.

Ninety-nine of these people are dead; 28 are living. Sixteen of the latter are old cases, who have long outlived the predictions

of physicians and friends, and still linger, indulging in quack medicines and alcoholic liquors, and suggesting that the diagnosis of tubercles was incorrect, or that their growth or deposit may be indefinitely arrested.

Six of the 28 seem in the enjoyment of tolerable, although fluctuating health, after having had hemorrhages, night-sweats, hectic fevers, emaciation, &c., with the physical signs of tubercle. As the improvement or apparent cure has in no case persisted over three years, it is unfair to affirm that any one of them is cured.

Six cases are still under my treatment.

Fourteen of the above cases originated in more northern latitudes, and their lives were greatly prolonged by an early removal to and continued residence in the South.

From the study and treatment of these 127 cases, the following opinions have been mainly derived:

I do not believe that pulmonary consumption is properly an inherited disease. That it may be so is unquestionable, both of man and animals; but I have seen many cases of accidental or spontaneous origination, when the parents and grandparents had been free from constitutional taint; and conversely, I have seen large families derived from tuberculous parents remain perfectly free from consumption.

Sixteen of my cases had at least one consumptive parent; 32 of them had perfectly healthy parents; the question as to the rest was unascertained.

The fact seems to be, that tuberculous parents are likely to beget children of feeble organization, who succumb more readily than others to the various causes of organic or malignant diseases.

I have seen nothing to warrant the suspicion that consumption is contagious. One of my patients nursed her husband for two or three years, and after his death, although of very healthy parents, sank into a rapid laryngeal consumption. But, on the contrary, another lady nursed two husbands, one for nine months, and the next for seven years, and remains to this day in perfect health.

The consumptions of this latitude are, I think, more frequently

of an inflammatory than of a cachectic origin; catarrhal bronchitis, passing gradually on to the growth of tubercle and the formation of cavities; or basic pneumonia—gliding into fibroid degeneration, with frequent hemorrhages.

I have seen no case of nasal or pharyngeal catarrh passing downwards and terminating in pulmonary consumption. These cases are generally whisky-consumption.

I have not noted that persons subject at and after puberty to hemorrhages from the nose, are therefore specially subject to pulmonary hemorrhage and phthisis.

Several of my cases were of traumatic origin,—the organic lesion sloughing, terminating in vesicular disintegration. One case was occasioned by the bursting of an hepatic abscess into the right lung. It was followed by cough, night-sweats, dulness on percussion, feeble respiratory murmur, &c. The disease was apparently checked, six months ago, by the 3d dec. trit. of the Muriate of Gold and Soda. I would not have classed this case as pulmonary consumption, but for the great constitutional disturbance and the decided contraction of the right lung. The hepatic abscess had been treated allopathically, and the patient came to me in despair to try homœopathy for the constantly increasing phthisical symptoms.

There is no homœopathic specific for consumption. Reflect upon the pathological factors in the case: mal-assimilation of food; gradual deterioration and imperfect purification of the blood; impaired and perverted nutrition shown by cacoplastic deposits, and a steady process of disorganization and decay. The local disease in the lung is one effect of the general loss of vital tone in the whole system; and the remedies which would cure almost the same symptoms in chronic bronchitis or pneumonia in non-tuberculous patients, will have no effect here. The disease consists in the morbid conditions above stated, and not in the hectic fevers, night-sweats, cough, hemorrhage, emaciation, &c. To strike at the root of the evil we must use *nutritive agents*, not medicines, except as stimulators of nutrition, or intercurrent palliatives.

The first requisite is fresh, pure air, neither too hot nor too cold, and free from humidity. Minnesota and Colorado in the

North, and Eastern Florida and Western Texas in the South are decidedly the best sanitariums in our own country.

Almost as requisite as the proper atmosphere is systematic and almost constant *exercise* out in the open air. However gentle and passive this exercise may be of necessity, the consumptive should endeavor to live out of doors. I knew a gentleman whose case was pronounced hopeless, who made the trip across the plains to California twenty years ago, sleeping on the ground without a tent every night, and who returned well and is still living.

Where outdoor exercise is impossible, systematic, deep, voluntary breathing, at regular intervals, to the point of fatigue, is a valuable substitute.

A sea-voyage around the world cured two cases of incipient consumption in young gentlemen of my acquaintance, whose entire families had perished with the disease. They started without delay on the occurrence of severe hemorrhage, and returned in two or three years in robust health. The disease reappeared in one of them after five or six years. He resorted to the usual medical prescriptions, went to Cuba, and died. The other one is, I believe, still living.

Sea-voyages are very beneficial to most consumptives; are better I think than a residence on a southern seacoast, where the changes are sometimes harmful, the wind blowing one day from the land and the next from the sea. One of my patients, after fearful hemorrhages, started from New Orleans last autumn scarcely able to walk. He went to Liverpool on a sailing vessel, thence to the Mediterranean, and back to Liverpool, and reports himself perfectly well, which, however, is doubtful. A fine vessel, fitted up for invalids, and voyaging the winter months between the West Indies and the Madeira Islands, would be a good sanitarium for many cases.

In direct opposition to the fresh, pure air theory, is that which recommends the heavy, impure, malarial, carbonaceous air of the lowest swamp lands. This, in conjunction with the hydrocarbons, oil and alcohol, for food, was supposed to prevent the too rapid oxidation and consequent destruction of the lung-tissue. Very great confidence in this theory is felt by many Southern

physicians, and they adduce a great many facts to sustain it. Two of the worst cases I ever saw were cured in this manner. They had been condemned as hopeless cases of phthisis by the most intelligent physicians, and so greatly emaciated were they, that they were carried over to Concordia Parish, La., on their beds. They recovered and became very stout and plethoric men. They literally lived out of doors, thoroughly soaked with whisky. One was a physician who did an immense practice for ten years, and died of yellow fever. The other was a planter, immoderately fond of hunting, and he died, alas! of the whisky which he said had cured his consumption.

I have no experience with what is called "the mountain-cure," and no confidence whatever in the residence in a sugar-house, which was once considered specific for consumption.

One of my own brothers, nineteen years of age, tall, thin, nervous, and dyspeptic, while throwing up a little child into the air and catching him as he fell, was seized with terrible hemorrhage. It lasted a week, and he glided rapidly into phthisis, which was not hereditary in the family. He was thoroughly examined by Dr. Alonzo Clark, of New York City, who diagnosed miliary tubercle, and gave him six months only to live. He recommended the free use of brandy, no medicine whatever, and to spend his winter in Florida. He followed the advice, improved rapidly, and lived seven years. He might have lived much longer had he been able to return to Florida, but the great civil war broke out, and he was confined to Virginia until his death.

Next in importance to the air a consumptive breathes is the food he eats. Phthisis is essentially a disease of mal-assimilation and perverted nutrition. Dyspepsia is often its forerunner, and always its most annoying accompaniment. Study your patient's digestion, give him the food specially suited to his case, assist it by the proper homœopathic specifics, and supplement it when necessary by pepsin and pancreatin.

Food, air, exercise, are the proper medicaments. What of medicines? In tubercular phthisis they are palliative, not curative. Any given symptoms, hemorrhages, night-sweats, intermittent fevers, cough, dyspnœa, &c., may be alleviated, and sometimes amazingly so, by the proper homœopathic specifics. I

have nothing new to add here. Our medicinal treatment is far better than the allopathic. Our patient lives longer, suffers less, and is far more gently conducted down the inclined plane that leads to the grave.

I have, however, considerable faith in two great *nutrient* remedies, *stimulators of nutrition* as they ought to be called: *Cod-Liver Oil* and the *Hypophosphites of Lime and Soda. The Hypophosphites of Iron and Potassa*, often prescribed, are entirely useless or injurious. The hyphosphites should be taken—one teaspoonful of Winchester's preparation before breakfast and dinner; and the cod-liver oil, one teaspoonful, never more, one or two hours after the same meals, with or followed by some alcoholic potation.

May future labors extend our range of knowledge and the possibilities of cure!

XLII.

HINTS FOR THE MANAGEMENT OF PHTHISIS PULMONALIS.

By George A. Hall, M.D., Chicago, Ill.

The prevalence of this disease, and its increasing ravages among the human family, make it a subject for particular consideration by the Bureau of Clinical Medicine. Its stealthy progress is a terror to its victim and a dread to the practitioner.

Many and varied are the theories respecting its true etiology, and many are the advertised means of cure, each in turn falling into disuse. Many are the conjectures and contradictory the ideas respecting the climate, surroundings, habits, and hygienic management of patients suffering with this disease. I do not desire to prove or disprove these various theories, and it would be foreign to my present intention to attempt to fathom the virtues of the different modes of treatment. I simply desire to add the testimony of my experience and observation during a term of seventeen years, in regard to the causation, prophylaxis and therapeutics of phthisis.

First, then, let me give you a description of my field of practice; believing as I do that location and local causes should be considered. I resided in Westfield, Chautauqua County, N. Y., fifty-eight miles west of Buffalo, one and a half miles from Lake Erie. The south shore along the lake from Buffalo to Cleveland differs but little in climate or geological strata, the shore being bold, and varying from twenty-five to one hundred feet in height. From the lake, back for a distance of one to three miles, the soil is clay or clay-loam. You then come to a gravel ridge, which

varies in width from two to five miles, and then strike a bluff or table land of clay with a slate shale base. South of Westfield, at a distance of seven miles, upon the top of Chautauqua Hills, an elevation of nine hundred feet above the level of Lake Erie, rests Lake Chautauqua. Thus you will observe we were between these two bodies of water, Lake Erie on the north and Chautauqua Lake on the south; consequently the atmosphere was humid.

These bodies of water influenced the temperature of the atmosphere as well as its moisture. During the summer season they were the cause of trade winds blowing from the north during the daytime and generally from the south at night. These winds were grateful and refreshing during the hot summer months, and acted as a powerful tonic to the debilitated subject. In the fall they served to prevent frost, so that vegetation would remain fresh and green until the middle or latter part of November. The winter seasons were attended with abrupt and extreme changes in temperature; one day the mercury would indicate 60° above zero, while the next it would be at or even below zero. These extreme changes, and the penetrating and chilly winds of the spring months coming from the lakes covered with ice and snow, were particularly favorable for the development of pulmonary and catarrhal troubles. Pneumonia, bronchitis, tonsillitis, and diphtheria prevailed epidemically during the winter and spring seasons. Catarrh is a standing difficulty with almost every resident along the lake coast, involving the nasal passages, the throat, or all the mucous surfaces. Asthma and capillary bronchitis are frequent and obstinate. Any person living in this locality who inherits a scrofulous diathesis, will surely suffer with some one or all of the above troubles if exposed to the inclemencies of the winter season, or the merciless winds of the spring time. From my own observation I have found that ninety-five per cent. of the victims of phthisis have suffered from catarrh in some one or all of its forms. In short, I believe the conditions which best favor the development of tuberculosis, so far as I have observed in this climate, are neglected catarrhal irritations, habitual constipation, imperfect resolution following pneumonia, imperfectly developed or badly treated cases of diphtheria, and the sequela following measles. If the physician could be ad-

vised in the early stages of these initiatory troubles, much might be done to stay the ravages of phthisis. The months of March and April are particularly trying to pulmonary subjects, and it is at this season of the year that pulmonary consumption claims its largest number of victims. So much dreaded were these months, that I have examined every avenue of escape for this class of patients from the inclemencies of the spring months. The prevailing winds during the springtime are from the north and east, the east winds being particularly severe on consumptive patients.

When the surroundings and circumstances of the patient will admit, I advise their removal to some genial climate; should they already have a deposition of tubercles, I would send them to the pine districts of Pennsylvania or Virginia. If suffering with extensive bronchial irritation, without the evidences of tubercular deposit, I would advise their removal to some tropical climate. Unfortunately, in a majority of cases, their limited means would not admit of this burden of expense; this would compel us to improvise such indoor climate as their cases would demand. To create a world within a world, where the patient might be removed from the severer changes of the season, I have, in a measure, met this necessity by placing the patient in a well-ventilated apartment, with suitable heating apparatus to maintain even temperature. I would prefer the room to be finished with well-seasoned and newly dressed pine boards, with neither paint nor varnish. The pitch from the pine impregnating the atmosphere, I believe to be highly beneficial, especially in those cases suffering from mucous or bronchial irritation. The atmosphere should be kept free from dust; removing the patient to some adjacent apartment of like temperature while sweeping and adjusting the room. If the strength of the patient admits, I prescribe regular physical exercise with the lift machine, dumb-bells, pulleys, rings, or other means conveniently at hand. I use brisk friction every alternate day with a dry warm towel, and every other day a dry hand-bath given by a strong, healthy attendant. A sponge-bath of tepid salt water, or a solution of one half ounce aqua ammonia to four quarts tepid water, followed by generous friction,

may be used every third or sixth day, according to the vitality of the patient.

In the case of very delicate subjects, I advise their remaining in bed during the extreme and trying changes of the spring, or the severe cold winter-time. The exercises above prescribed should not be violent, but perseveringly followed.

To build up the physical powers of the consumptive I consider of the greatest importance, and this can only be done by a systematic and judicious course of exercise.

The attendants as well as the surroundings should be of the most pleasant and agreeable character. The phases of the mind and disposition of the patient should be carefully watched, avoiding everything which will irritate or provoke them to an unpleasant degree.

The mental condition having a powerful influence over the digestive system, it is exceedingly important that they be kept in a happy and peaceful state. The diet should be as generous and nutritious as the digestive apparatus will receive. Sweet cream and milk and cod-liver oil are highly serviceable in cases where the stomach can dispose of them. Rarely cooked steak and boluses of finely grated raw meat mixed with sugar I prescribe when they are received kindly. From observation I am convinced that the above surroundings and regulations, if properly carried out, will prove far more successful than changing climate, with the liabilities and risk of exposure and a deprivation of home comforts. Having thus wintered and carried my patient through the spring months, as the weather becomes moderate I encourage outdoor exercise.

At first, it should be taken between the hours of ten A.M. and three P.M. As the season advances and the heat becomes extreme, I advise the exercises to be taken between the hours of six to nine A.M., and four to seven P.M. When the season of luscious fruits arrives, I have my patient go daily to the vineyard, there pick and eat all the ripe grapes they may desire, beginning moderately, and increasing to their full capacity. The Grape Cure, which has attracted so much attention in Germany and France, I had ample opportunity of testing thoroughly, and believe fully in its efficacy. The south shore along

the lake abounds in vineyards, being well adapted to the growth of every variety of grape, which enabled us to give the grape cure a practical test. I have observed cases of phthisis far advanced, suffering with colliquative diarrhœa, improve rapidly by eating the grape and chewing the skin, but not swallowing the same, thereby getting the tannic property. The variety of grape should be prescribed according to the condition of the patient.

The sweeter varieties, like the Hartford Prolific, Concord, and Delaware, seem to agree with some, while the Catawba, Clinton, Franklin, Norton Virginia, and those containing more acid, are better adapted to other cases. Some can only take the grapes with their meals, while others can eat them *ad libitum*. The native wines are beneficial, and seem to agree well with many. The dry wines are preferable, and should be taken directly after eating. The wine made from the Norton Virginia Seedling grape, I consider the most valuable of all our native wines, especially in cases complicated with bowel trouble. In many instances of soldiers returning from the army with chronic diarrhœa, I have prescribed this wine with pleasing results. In all diseases attended with enfeebled digestion and enteric irritation, I believe this wine to be a valuable adjuvant.

The therapeutics employed in phthisis embrace a wide range. In the selection of the remedy, I take into consideration the individual peculiarity of my patient, and the surroundings as well as the symptomatology of the case.

Every practitioner will learn to repose more or less confidence in certain remedies which have served him well. The field is extensive from which we have to select, and I would not desire to bias any one in favor of the remedies which I have employed contrary to their own experience.

I will enumerate those which have been most serviceable in my hands, but giving the especial indications for the use of but a few. We first find the mineral acids, the phosphates, the bromides and iodides as the four corner-stones on which we erect our medical treatment. The individual remedies are, Aconite, Arsenicum, the different forms of Antimony, Argentum, Asclepias, Bryonia, Belladonna, Cimicifuga, Codein, Cactus, Chelidonium majus, Cuprum, Digitalis, Dulcamara,

Eryngium aquat, Elaps, Gelseminum, Guaiacum, Hamamelis, Helonias, Hypophosphite of Lime, Hyoscyamus, Ignatia, Lachesis, Laurocerasus, Lobelia, Lycopodium, Kali bich., Kali brom., Kali carb., Merc. sol., Merc. iod., Nux vomica, Natrum, Phosphorus, Phytolacca, Podophyllum, Rumex crisp., Rhus tox., Senecio aureus, Sanguinaria, Sticta pulm., Silphium, Stannum, Trillium, Veratrum.

In the incipient stage of phthisis, or in persons who have not already a deposition of tubercle, but are strongly inclined or predisposed to have, by constitutional or hereditary tendencies, I exhibit the phosphates, iodides, bromides, and mineral acids. These we find serviceable during the ulcerative stage, and use them as constitutional supports.

During the inflammatory stages we find Aconite, Belladonna, Bryonia, Gelseminum, and Veratrum, the controlling agents.

For the catarrhal stage, which frequently precedes phthisis, Asclepias we find one of the best remedies, and give it when there is copious nasal discharge of white glairy mucus, with a dull pain in the supraorbital region, or lancinating neuralgic pains in the temporal region. This, with Dulcamara, Nitric acid, Mercurius, Iodine, and Silphium, are my chief remedies in catarrhal affections. Silphium I consider the most potent remedy we have in controlling nasal and mucous irritations, accompanied with an exhaustive discharge of frothy, stringy mucus, and for other characteristic symptoms, for which I would refer the reader to the *Medical Investigator*, No. 112, Volume X.

Laurocerasus is a favorite remedy with me in cases of phthisis, before or in the first stage of ulceration, when the patient has a dry troublesome cough, with a dry or exceedingly moist tongue, want of appetite, and a predisposition to bowel irritation. I have used it in cases where the expectoration changed from a gray or yellowish to a greenish hue after standing a few hours. I use Phosphoric acid when the expectoration turns to a whitish or milky color. In all cases of phthisis complicated with hepatic affections, I give Chelidonium, Bryonia, Merc. iod., Podophyllum.

Where there is a strong hemorrhagic tendency, I use China, Hamamelis, Guaiacum, Trillium.

In those cases suffering from bronchial irritation, I find Kali bich., Phosphorus, Rumex, Sanguinaria, very serviceable.

When the patient is troubled with rheumatic complaints, coupled with phthisis, I employ Bryonia, Cimicifuga, Guaiacum, Phytolacca and Nux vomica.

Suffice to say, in selecting the remedies in each individual case, I am governed by the pathology, temperament, and surroundings as much as I am influenced by the symptomatology.

Both are equally important. After a careful and critical examination into the necessities of each case, I select my constitutional remedy, and continue it some time at long range, with intercurrent remedies, as temporary conditions may require. With the above general course of management and the administration of remedies homœopathically selected, I have had the pleasure of seeing many cases of threatened phthisis averted, and others far advanced stayed for an indefinite length of time; for all of which I rejoice in the law of *Similia similibus curantur.*

XLIII.

FERRUM VERSUS PHTHISIS.

By E. C. Beckwith, M.D., Zanesville, O.

Outside of the "Garden of Eden," no inhabited spot on this earth is recorded as free from all traces of phthisis; and I strongly suspect that could that once lovely place be found and peopled again, it would prove no exception to the general rule. All sections are not, however, alike in the proportion of deaths from phthisis, and I think we must take this admitted fact, as we take one line of the spectroscope, and work from it, in our endeavors to find the true cause and cure of this dreadful scourge, which now carries off more than twenty-five per cent. of the human race.

In one of the countries of Africa every passer-by must drop a pebble on the altar of their god. This simple but beautiful form of worship has continued for years, until many of these altars are now mounds or hills. If we who worship at the shrine of Medicine, will each drop a little from our store of observations, shall we not soon be able to complete our needed chart, and read with certainty the lessons that now baffle us all?

The Muskingum Valley is claimed to be freer from consumption than any other portion of the State of Ohio. My own observation, extending over a period of twenty years, leads me to believe that this claim is well founded. Let us learn, if possible, why this one section is so happily circumstanced. The soil is much like other portions of the State. The climatology gives no evidence that it has peculiar exemptions from extremes of heat

and cold, or other causes that would give the people this desired freedom from pulmonary disorders. The inhabitants are, as is usual in the West, a mixed race, a compound of nearly all nationalities.

The coal basin of Ohio is, however, largely included in this valley, and, as we find coal and iron usually in the same neighborhood, so in this beautiful valley, we find the coal measure closely associated with iron, and I do not now remember of a coal-mine that has not a chalybeate spring, or, as the miners say, copperas-water, in it. These springs of water, more or less charged with solutions of the various salts of iron, help to form our brooks, creeks, and rivers, and are, therefore, used more or less by the inhabitants, especially such as live in the cities where the river-water is used for all purposes. Some of the springs are so highly charged with iron, that you have only to add tannic acid to obtain a fair article of writing ink.

I mention this fact to show that we are an iron-consuming people in more ways than one.

In the city of Zanesville and vicinity, we have not far from one thousand persons engaged in the occupation of coal mining. As a body, our coal-diggers are from among the poorer classes, and live in cabins and hovels, with few of the ordinary comforts of well-regulated homes around them. They generally spend for drink the larger portion of their wages, which are good, often amounting to from twenty-five to thirty dollars per week. Notwithstanding their irregular and dissipated lives, I know of no case of consumption among them; have never heard of but one case in all this section of country; have inquired of physicians and others, and have invariably had the same answer returned, "I know of no case of consumption among coal-diggers."

Some years ago it was claimed that consumptives only required an equable temperature to insure recovery. Mines and caves were recommended as specifics in this disease. One had only to live in a "hole in the ground," and he could count on perfect restoration to health. It was on this theory that quite a village was built in the Mammoth Cave, for the residence of consumptive patients. Time proved this theory worthless. The equable temperature of coal-mines cannot therefore be the cause of

miners so generally escaping all symptoms of phthisis. Their disregard of all rules of hygiene must predispose them to disease and waste of tissues generally.

The amount of iron taken into the system by the continued use of the chalybeate water, is thought by many to be the cause of this exemption, and offers the only rational explanation of this question that I have been able to discover.

The following incident will illustrate the wonderful effects of these chalybeate waters: Near our city four men were imprisoned in a coal-mine by the falling in of the roof. They had as food only a lunch for two persons, or half a meal per man, but plenty of water, which was, however, strongly impregnated with iron. After fourteen days and thirteen hours they were liberated, and found to be alive and well, having during that time only taken about half of one meal of solid food each, but had used the chalybeate water freely. Not one of them had had an evacuation of the bowels during the time of their imprisonment, or for days afterward. Clysters had to be used in all the four cases before the bowels were moved. The iron evidently prevented, to an extent at least, the wasting of tissues. Here you can see on what the theory of iron as a preventive of decline is based. In this short paper, I do not wish to be understood as claiming that iron will cure phthisis, but I do claim that the facts show a marked exemption from consumption in persons who habitually use water mixed with solutions of the salts of iron. While I regret that my observations are limited, and do not prove this theory positively true, still I hope they may be of use in the solution of this vexed question.

XLIV.

REGULAR AND SYSTEMATIC RESPIRATION OF PURE AIR AS A PROPHYLAXIS OF PHTHISIS PULMONALIS.

By J. C. Burgher, M.D., of Pittsburg, Pa.

Assuming that the labors of my colleagues have exhausted the subject of Phthisis Pulmonalis, so far as relates to its clinical history, anatomical characters, pathology, causation, and medical treatment, you will permit me to call your attention to a simple, and in a large percentage of cases, an effectual preventive, viz., *the regular and systematic respiration of pure atmospheric air.* I would not be understood as underrating medical treatment. I have great confidence in the efficacy of *medicines* in controlling and counteracting disease when employed in accordance with the law similia; but I am not prepared to advocate the curability of "*pulmonary tuberculosis*" by any known specifics. While important results may be realized in this disease by proper medication, far more reliance may be placed on hygienic measures, the chief of which is the *voluntary respiration of pure atmospheric air.* If we take into consideration the fact, that this pale and withering pestilence, *in spite of medical treatment,* consigns to untimely graves nearly one-fifth as many as all other diseases combined, we shall more fully appreciate the importance of an early resort to preventive measures. It would be foreign to my purpose to enter here upon the discussion of the general morbid constitutional condition which gives rise to pulmonary tuberculosis, or to review the various theories which have

been advanced, apparently for bridging over instead of settling the question of causation. There can, however, be but little doubt that the pulmonary disease is but the local expression of a great constitutional malady called the tuberculous cachexia, or dyscrasia, and that it is not primarily and essentially an affection of the lungs. It is a rational inference that tubercular deposits cannot take place in the lungs while the air-cells are sufficiently distended for the fulfilment of their proper functions in the aeration of the blood and the elimination of carbonic acid; but deprive them of an adequate supply of pure air, or irritate them by long-continued inhalation of that which is vitiated, and one after another becomes collapsed and forms a nidus for the deposit of tubercle. The primary object should be to remove the constitutional cachexia, and thus prevent the formation of tubercles where they do not exist, and to arrest their further production where they have been already formed. Where hereditary predisposition to tuberculosis is present, anything which depresses vital action tends to its development, and the converse is true, viz., that which invigorates the system fortifies it against the disclosure of the latent dyscrasia.

In the further consideration of this subject, you will excuse me for reproducing, as a suitable groundwork for the better exposition of my subject, so much of the PHYSIOLOGY OF RESPIRATION as relates to the mechanical movements employed and the chemical phenomena produced. The vital activity of the organism involves a constant change of its constituent parts. In the performance of the *organic* functions which concur to effect the *nutrition* of the body, there is constant disintegration; one of the principal products of this decay of the tissues being *carbonic acid*, and one of the chief objects of the respiratory process is the elimination of this product from the system. The blood, in its circulation through the capillaries, undergoes great alterations both in its physical constitution and in its vital properties. It imparts to the tissues with which it comes in contact some of its most important elements, and at the same time it is made the vehicle of removal from these tissues of ingredients which are no longer in the state of combination that fits them for their offices in the animal economy. To separate these ingredients

from the blood, and to convey them out of the system, are the main functions of the excretory organs, the importance of whose respective offices varies with the quantity of the ingredients separated, and the injurious influence which its retention would produce. Of all these deleterious ingredients *carbonic acid* is the one most abundantly introduced into the blood, and the most deleterious in its effects on the system if permitted to accumulate. Hence the provision for the removal of this substance from the nutritive fluid is one of peculiar extent and unrivalled importance; and unlike other acts of *excretion*, which are effected by operations purely vital, its performance is made to depend upon *physical* conditions, and is thus rendered less liable to disturbance from derangement of other processes. All that is requisite for it is the exposure of the blood to the influence of the atmospheric air, through the medium of a membrance that will permit the "diffusion of gases," when an interchange takes place between the gases on the two sides. The interchange of gases which occurs during respiration, between the air and blood, is a simple phenomenon of exhalation and absorption; *carbonic acid* being exhaled from the *blood* and replaced by *oxygen* absorbed from the *air*. It is in these two processes conjointly in this double phenomena which takes place in the lungs, that the function of respiration consists, both parts of the process being equally essential to life.

MECHANISM OF RESPIRATION.—The dilatation of the chest in inspiration is chiefly accomplished by the diaphragm and intercostal muscles. The diaphragm, in a state of relaxation, has the form of a vaulted partition between the thorax and abdomen, its convexity rising into the cavity of the chest as high as the level of the fifth rib; but when its fibres contract, the high arch that it previously formed approximates a plane, enlarging the thoracic cavity from above downwards. In this change of figure the diaphragm presses on the abdominal viscera, provision being made for their partial displacement by the relaxation of the abdominal muscles. At the same time the cavity of the chest is dilated laterally and antero-posteriorly by the simultaneous contraction of the intercostal muscles. Thus, by the simultaneous action of the diaphragm, which descends, and of the intercostal

muscles, which elevate the ribs and push forward the sternum, the cavity of the chest is enlarged in every direction, tending to produce a vacuum, which is prevented by the external air passing inward through the glottis, trachea and bronchial tubes by the simple force of aspiration. On the other hand, the movement of expiration is entirely passive, and is accomplished by the associated action of three different forces. First, the expiratory movement is assured by the contraction of the abdominal muscles, which antagonize the diaphragm by pushing back the abdominal organs, causing it to assume its arched form in the thorax as soon as it has become relaxed. Secondly, the proper costal portion of the internal intercostals, the infracostals, and a part of the triangularis sterni contract to draw the ribs down and compress the sides of the chest. Thirdly, the elastic fibres of the pulmonary tissue having been more or less distended during the inspiratory movement retract by virtue of their own elasticity, and compressing the pulmonary vesicles drive out a portion of the air which they inclosed. There are many accessory muscles which take part in violent respiratory movements. In deep inspiration all the muscles which elevate the scapulæ may act through them upon the ribs; the scaleni act directly upon the first rib of each side, whilst all the muscles which erect the spine, fix more firmly the origins of these and others which act upon the thorax. So, also, forced expiration is aided by the sacro-lumbalis, longissimus dorsi, and other muscles which tend to depress the ribs.

Respiratory Movements of the Glottis.—The respiratory movements which take place in the larynx, are similar to the dilatations and contractions of the chest. At each inspiration the glottis opens and permits the air to pass into the trachea, and collapses at each expiration that the air may freely pass out. These movements of the glottis correspond in every respect with those of the chest, and are increased or diminished by similar causes. Thus, if the general movements of respiration are rapid and labored, those of the glottis are correspondingly accelerated; and when the movements of the chest are slow, those of the glottis are diminished to the same extent. The motions of the glottis in inspiration, like those of the chest, are active, and those

of expiration passive. In the act of inspiration, the glottis is opened by the contraction of the posterior crico-arytenoid muscles; in that of expiration, these muscles relax and are carried back to their former position by the elasticity of the vocal cords, permitting a free issue of the expired air. The movements of the chest and those of the glottis, in a normal condition, correspond with each other both in measure and degree. It is at the same time and through the same *nervous* influence, that the chest is expanded to inhale and the glottis opened to admit the air; while in expiration the muscles of both chest and glottis are relaxed, the passive contraction of their elastic tissues reacting upon themselves, return the parts to their ordinary positions and dimensions.

ATMOSPHERIC AIR AND THE ALTERATIONS PRODUCED BY RESPIRATION.—Air is a mixture of nitrogen and oxygen, in the proportion of about seventy-nine parts of the former to twenty-one of the latter, in every one hundred by volume. This proportion holds good in all places and at all heights in the open or external air, and has not undergone any appreciable change since the fact was first established by chemistry. Besides these, air contains more or less watery vapor, about one-twentieth per cent. of carbonic acid and slight traces of ammonia. The air expired differs from that inspired in the following essential particulars. The quantity of oxygen has been diminished, and that of carbonic acid and the vapor of water increased, while the nitrogen remains about the same. The air passes out of the lungs at very nearly the temperature of the venous blood. The most important changes effected in the air by respiration, consists in the loss of oxygen and gain of carbonic acid. At the ordinary rate of respiration, the probable average of carbonic acid is about 4.5 per cent. of the whole air exhaled; this is, however, only true when fresh air is inhaled. If the air be already charged with carbonic acid, the quantity exhaled is much less; and hence the great importance of thorough ventilation. While breathing in a confined atmosphere its oxygen is constantly diminished, and the carbonic acid increased in quantity. In a longer or shorter time (varying with the quantity of air and the number of persons respiring it), it becomes so deficient in oxygen

that it is incapable of sustaining life from that cause alone. The carbonic acid at the same time becomes so abundant in the lungs, that it prevents the escape of that which exists in the blood; and the damaging effect of its accumulation in the vital fluid is added to that produced by the diminished quantity of oxygen. Physiologists estimate the average quantity of air exchanged at each respiration at twenty cubic inches, which is really but a small portion of the entire amount which the lungs in their natural condition contain; for the residual air which cannot be expelled is about one hundred cubic inches, and the *supplemental air* which can only be expelled by forced expiration amounts to one hundred cubic inches more; the sum being two hundred cubic inches, or ten times the breathing volume. If these estimates are correct, ten ordinary respirations will be required to change the whole quantity of air contained in the lungs. It is quite plain that if there was no provision for mingling the inspired air with that constantly occupying the lungs, the former would penetrate no further than the larger air-passages, and merely occupy the place of that which was thrown out at the last expiration, leaving the greater portion of the air contained in the lungs unrenewed, and that which is expired unchanged. That the whole volume of air contained in the lungs undergoes a change with every inspiration, is indicated by the difference between the inspired and expired air. This change is attributed to the mutual diffusion of gases, which tend to interpenetrate one another, when either of different densities or different temperatures. The air remaining in the deeper portions of the lungs is richer in carbonic acid and poorer in oxygen than that recently inspired; and by the before-mentioned law, there must be a constant interchange of the gases between the pulmonary vesicles and the trachea, tending to mix them equally in every part of the lungs.

Air Vesicles and Cells.—The right and left bronchi branch off at the root of the lungs, dividing generally into pairs and at acute angles, into smaller and smaller branches, but giving off, at the same time, from the sides of the larger and medium-sized branches, numerous minute air-vessels, at a right angle, which, like the terminations of the main ramifications,

subdivide into an arborescent form. Thus is ultimately formed a tree of air-vessels, whose finest terminations, without anastomosing, extend through the entire lung and exist in every part, both of surface and interior. Connected with them also, are the ultimate elements of the air-passages, the alveoli pulmonum, each finest bronchial twig communicating with a whole group of air-cells. The air-cells vary in size even in the healthy lung when undistended with air, from $\frac{1}{8}$th to $\frac{1}{10}$th and $\frac{1}{18}$th of a line. Every air-cell may be dilated to two or three times its natural dimensions without rupture, the elasticity which permits its distension causing it to return to its former condition. The whole extent of the respiratory surface of the lungs has been estimated at 1400 square feet. The great number of the minute pulmonary vesicles and their septa, would seem to give an extent of surface sufficient to bring the above estimate within the range of probability. It is over this great extent of surface that the venous blood is spread out in a thin layer and exposed to the action of the air, under the most favorable anatomical arrangements possible for its rapid and constant aeration.

The number of respiratory movements occurring in the healthy adult, range from sixteen to twenty in a minute, eighteen being about the average. The average numerical ratio of the respirations to the pulsations of the heart is as one to four, one to four and a half, and one to five. Both respiration and pulsation are increased by muscular exertion. The respiratory movements, as ordinarily performed, are essentially automatic, although they are to a limited extent under the control of the will. The total amount of air which can be expelled from the lungs by living movements, is designated as the vital capacity, and is less dependent upon the size of the chest than upon its mobility. Any one who has had much experience in the examination of recruits or applicants for life insurance, must have noticed the ignorance displayed by many in their fruitless efforts to fully inflate their lungs, and the ease with which it was accomplished, after a little instruction and a few trials.

Having established a suitable groundwork for the better exposition of the main question, it may be well in its further elucidation to notice some of the factors in the production of phthisis.

First, we have the *inherited predisposition*—the constitutional taint—the phthisical habit, or latent dyscrasia, which may be brought into activity by causes inadequate to produce the disease in those free from this predisposing cause. We should not, however, overlook the fact that a person may have a strong hereditary predisposition to this disease without falling a victim to it. All that is necessary is, to *avoid* the exciting causes which determine its accession. Industrial occupations which predispose to consumption should be avoided by all who have an inherited tendency to it; such as the sedentary employments of accountants, seamstresses, shoemakers, tailors, &c.; and those occupations carried on in an atmosphere freighted with particles of dust, such as stonecutting, cutlery-grinding, cotton-carding, &c. Depressing emotions, an inadequate supply or deteriorated quality of food, have also been classed among the predisposing causes. The proposed limits of this paper preclude my entering upon the discussion of the influence of climate, clothing, habits, &c., in the causation of this disease. The exciting causes are also numerous and various. I need not enumerate them. Any devitalizing disease may arouse a pre-existing tendency into an actual development; such as low fevers, congestion of the lungs, pneumonitis, pleuritis, bronchitis, hooping-cough, measles, chronic suppurations, dyspepsia, &c.; and it is, after all, no easy matter to determine with certainty whether any given cause is exciting or merely predisposing, for that which appears to be a predisposing cause in one person, may act as an exciting cause only in another.

But the *last* cause which I shall mention, and probably the first in importance, whether regarded as predisposing, exciting, or both, is that of *habitually breathing impure air*. By *impure air* is meant that which has been respired in whole or in part before; such as is breathed by the occupants of every ill-ventilated apartment,—air that is confined around the breather, without having been renewed by mingling with the great atmospheric ocean without. When we consider that the aeration of the blood depends on the interchange of its carbonic acid for oxygen, which can only take place by breathing pure air, we cannot fail to deduce the fact, that when vitiated by the exhalations given off by the surface of the body and the animal matter in a gaseous form

thrown out with the carbonic acid at every expiration, that the confined and prebreathed air of crowded factories, workshops, schoolhouses, railroad cars, lecture-rooms, and sleeping apartments, must constitute a potential factor in giving local expression to any existing constitutional taint in the formation of tubercles. It has been shown by statistics that consumption occurs much more frequently among those whose pursuits are carried on within-doors than among those whose occupation involves outdoor life. The disease occurs more frequently in females than in males. It prevails to a much greater extent in cities than in the rural districts; showing the operation of auxiliary causes in the former, such as defective ventilation, deficiency of sunlight, outdoor exercise, &c. Our architects have succeeded admirably in keeping the cold out of, but unfortunately have failed in making suitable provision for letting the air into our dwellings. And this leads me to remark that the influence of climate in the production of this disease has been overestimated. The advantages or disadvantages of climate are conditional. The inhabitants of warm climates spend the greater portion of their time out of doors, and in comparatively open dwellings, through which the pure external air freely circulates; while in colder latitudes the people live indoors, breathing over and over again an unrenewed atmosphere, vitiated by respiration and exhalations from the surface of the body. Hence, to defective aeration of the blood are added imperfect nutrition, impaired appetite, diminished weight, loss of muscular strength, depression of spirits, &c., all inviting tubercular deposit. In the colder climates, the disease is more frequently developed during the spring or early summer months; a fact by no means insignificant, since many spend so large a portion of the inclement weather of winter indoors, breathing prebreathed air. These conditions are not, however, chargeable to the mere sport of climate, for they obtain in the most salubrious portions of the globe, as the invariable results of the habitual respiration of confined and prebreathed air. This is abundantly proved by the prevalence of consumption among the soldiers who occupy for any considerable time the badly ventilated barracks in the delightful climates of Gibraltar, Ionia, Malta, Trinidad, Bermuda, and others equally healthful. Parkes

tells us that, "in the true Alpine region, tubercular consumption is almost absent, and strangers arriving there suffering with it are often cured. The women employed in making embroidery congregate all day in small, ill-ventilated low rooms, where they are often obliged to be in a constrained posture. Their food is poor in quality. Scrofula is very common. The men, who live an open-air life, are exempt. There, in the very place where strangers are getting well of phthisis, the natives die of it." This fact goes to show, that a poor quality of food is not *per se* sufficient to produce the disease, since this cause is equally operative among those following outdoor as indoor pursuits. I am well aware that many and varied influences are comprised in the word "climate," such as elevation, character of the soil, temperature, moisture and density of the air, the quality of the water, &c. But without attempting to determine the importance of any of these complex factors, I maintain that no climate possesses the unconditional property either of producing, preventing, or curing consumption. I am well aware that the consumptive has derived signal benefit from a change of climate, when resorted to before the disease was too far advanced; but the change involves a journey, which in itself tends to invigorate the constitution by the rest which it affords without entire inactivity, freedom from home cares, novelty of scenery, but mainly by the far greater portion of time passed in the open air.

The prevalence of scrofula and consumption in connection with badly-ventilated dormitories, workshops, houses of correction, prisons, soldiers' barracks, &c., where the occupants are subjected to the influence of rebreathed air, is well known. It has also been observed that many of the wild animals kept in menageries die of tubercular disease of the lungs. Monkeys confined in close cages soon die of consumption, which is said to be almost the only cause of mortality among them. Deprived of pure air and sunshine, the results are defective nutrition, emaciation, debility, tubercular disease and death. The drug which will cure the caged monkey of consumption, while subjected to the poisoned prebreathed air which produced the disease, has not yet been discovered. The same is equally true of human beings who breathe, the greater part of their lives, the confined air of furnace-

heated apartments. What medicine can be substituted for pure air in the animal economy? What drug can ever approximate in value

18 full respirations of pure air per minute,
1080 full respirations of pure air per hour,
25,320 full respirations of pure air per day;

the air of each inspiration acting, not on a secondary organ, not subject to any intermixture with food or products of digestion, but entering directly the air-cells of the lungs, imparting its oxygen *to* and imbibing the carbonic acid *from* the blood spread over an area of fourteen hundred (1400) square feet? Everything which impedes the complete and regular performance of the functions of respiration has a prejudicial effect upon the general system. The health, energy, and vigor of the individual is in a great measure ruled by the capacity of the organs of respiration, and their free exercise in the pure, open air.

I believe, *cæteris paribus*, that consumption is as preventible by the exclusive respiration of pure air, as delirium tremens by the exclusive use of pure water as a beverage. But it may be asked, where can pure air be obtained? A general answer to the question would be: Anywhere in the great air ocean without. Estimating the surface of the globe at two hundred millions of square miles, and the average height of the atmosphere at forty-five miles, we have the incomprehensible bulk of nine billions of cubic miles of air.

But even this immense volume of air might in time become so contaminated as to render it destructive to animal life, were no provisions made for keeping it pure. The products of combustion, the decomposition of organic matter, as well as that which is insensibly thrown off by respiration and cutaneous transpiration from living beings, are constantly undergoing changes by the process of oxidation and absorption. They are dispersed by winds, washed by showers, and absorbed by vegetation, rendering an accumulation sufficient to impress its destructive action on animal life impossible, when permitted to freely mingle with the great atmospheric ocean which envelops us. Nor is this all. About three-fourths of the earth's surface is water, which has a

strong affinity for gases, and is capable of absorbing large quantities without adding to its own bulk. A few years ago a report was presented to Congress, on "Warming and Ventilating the Capitol." The report appears to have been prepared by Professor Henry, T. U. Walter and Dr. Wetherill, and was accompanied by a large collection of carefully arranged tables of the "analysis of air." These tables were prepared from actual experiments, made by scientific men of various nations, each giving the results of his own analysis of air, taken from great elevations on mountains and in balloons, from mid-ocean and from the coast, from valleys, from the centre of the continent, from populous cities, from the open country, in winter and in summer, during the day and at night; and also the comparative analysis of the air out of doors and in occupied buildings. One of the most forcible facts brought to view in these tables is the uniform purity of the external air all over the globe, even in densely populated cities. It is proper to state, that in these tabular statements, the percentage of carbonic acid in the air is given as the test of its impurities. It is true that there are many other causes of deterioration, as the exhalations from sewers and from the decomposition of organic matter, the diminution of oxygen for the support of combustion and animal life, constantly yielding other deleterious products besides carbonic acid; but as carbonic acid is always formed in certain ascertained quantities by respiration and combustion, and exists in known proportions in pure air, it may be taken as a fair index for determining the condition of the air with reference to its influence on animal life and combustion. Pure air, you will remember, contains about four parts of carbonic acid in ten thousand. Dr. Angus Smith's analysis of the air of Manchester, England, gives, as the result of twenty-eight experiments, an average of about seven and a half parts in ten thousand; the average being greater than that of any other similar table, and probably the highest percentage of carbonic acid furnished by any city in the world. It is estimated that two millions of tons of coal are burned annually in the city of Manchester, the smoke from which emerges from its forest of factory chimneys and hangs like a dense cloud over the city. The per diem production of carbonic acid in this great manufacturing

mart, from the combustion of coal alone, is estimated at some two thousand tons, which, added to the five hundred tons thrown off from the lungs of its animal life during the same period, only yields the average proportion of about seven and one-half parts of this deleterious product in every ten thousand of air, really adding to the air but about three and a half parts in ten thousand. After the results of these most thorough and careful experiments, we do not wonder at the disappointed exclamation of Dr. Smith, "*How insignificant are the works of art in contaminating that vast ocean of air that is constantly sweeping over the surface of the earth.*" The additional amount of carbonic acid found in the streets of Manchester, is only the proportion that would be added to the air of a close room, fifteen feet square and ten feet high, in seven minutes, if occupied by five persons and lighted with a kerosene lamp or jet of gas. Other tables give the analysis of the air of London, Paris, Geneva, Madrid, Washington City, and several other places, as well as at different heights on mountains, on the Atlantic Ocean, &c., which exhibit great uniformity in the amount of carbonic acid in the air; rarely under four parts in ten thousand, and seldom exceeding six. In cities there is really a much larger quantity of carbonic acid resulting from combustion in the daytime than at night. The results of Méné's numerous experiments on the air of Paris, gave less carbonic acid at night than during the day. The air on the Atlantic Ocean, one thousand miles from the coast, gave (according to Lewey's analysis) an excess in the day over that of the night, which is attributed to the action of the sunlight liberating the gases which the water held in solution at night. Having given a résumé of the analysis of the external air, I shall give from the same source the results of the analysis of air in buildings and railroad cars. The air of dormitories yielded from 37 to 52 parts of carbonic acid in ten thousand; schoolroom from 30 to 56; when crowded, 72; hospital, Madrid, from 30 to 43; workshop, Munich, from 19 to 22; railroad car, 34; lecture-room, 32; lecture-room of M. Dumas, 42.5 at commencement and 67 at close of lecture; Chamber of Deputies, 16; Opera Comique, parterre 15, ceiling, 28; bed-room on rising in the morning, 48; the same after two hours' ventilation, 16;

stable from 7 to 14. By these tables, two important facts appear to be well established. 1. The purity, or at least the respirable quality of the outdoor air, even in large cities. 2. The vitiated quality of that in occupied buildings, badly ventilated.

Some years ago, Beddoes recommended patients threatened with or actually laboring under phthisis, to inhale the air of cow-stables. Some wonderful cures of consumption were reported as the result of the patient having been removed from his house to the stable, with his cows for companions. This advance towards a more successful therapeia, was not due to any virtues imparted from the cow, but to the air of the more open and consequently better ventilated stable being purer than the close chamber previously occupied. You will recollect that the air obtained from bed-rooms after two hours of ventilation, contained 16 parts of carbonic acid in ten thousand, while the highest percentage found in that of stables was but 14. And this opens up the whole subject of ventilation, which, however, it is not my purpose to discuss.

It will not, however, be out of place to remark, that the ventilation of a sleeping-room is only perfect when the atmosphere, after a night's occupation, is as pure as it was when it was entered the previous evening. If there is the slightest perception of impurity recognized by the sense of smell, the chamber is imperfectly ventilated; and whatever benefit the exhausted body may have derived from sleep, is partially lost by the effect of impure air. The question may be left to every one's own experience, to decide how often the atmosphere of his sleeping-room is free from impurities, when re-entered after having taken a short morning walk in the open air. Rarely will the air be found pure where but one person slept in the room, and exceptionally rare when the room has had two or more occupants. The human organism requires an average of about eight hours out of every twenty-four for healthy rest and sleep. For one-third of our time, a horizontal position, and a cessation of the active wear and tear on the intricate mechanism of the human body, are required to keep it in healthy action for the remaining two-thirds. The amount of sleep absolutely necessary varies, of course, with the age, activity, and health of the individual.

It is said that Napoleon required only four hours' sleep; but this planet has only furnished *one* Napoleon, and I fancy that those who were marshalled at his command would have been much better satisfied had this great Dictator slept and let them sleep, instead of compelling them to join in his midnight starts and forced marches. During these eight hours of sleep every person requires at least twenty hogsheads of pure air for respiration. Probably not one bed-room in a hundred, especially in cities, can supply it, with its provisions for ventilation. If this be true of the better class of dwellings, what must be the conditions of the crowded hovels, cellars, and garrets of our cities, where multitudes spend their nights, breathing an atmosphere pestilential from their own exhalations, the poisonous reaction of which on the organism produces disease and death? In our large cities thousands die annually of consumption, to say nothing of other diseases, who would in all human probability have lived to old age, were it not for the violation of the physical law of their being, which demands a requisite supply of pure air, to keep in harmonious action the delicate human mechanism, as an absolute condition of health.

I desire in conclusion to direct your particular attention to a simple, practical and effectual method of increasing the capacity of the chest and strengthening the lungs of those whose physical conformations predispose them to tuberculosis. Countless and varied exercises have been recommended, and numerous devices employed to accomplish these objects; some of which, under favorable circumstances, are very well adapted for the purpose; such as the Spirometer of Hutchinson, the calisthenic and gymnastic exercises and movements systematized by Schreber, Eastman, Dio Lewis, and others. But aside from the impracticability of their general adoption, they are decidedly objectionable (especially in city life, where most needed), since there the exercises must of necessity be conducted within doors, which defeats, partially at least, the attainment of the objects sought. Besides, in the performance of even light gymnastic or calisthenic exercises, there is an unnecessary waste of muscular strength and increased rate of pulse, all of which it is important to avoid. As an aid to the full

inflation of the lungs, the complete aeration of the blood, and the efficient exercise of the respiratory muscles, the

STHENOTROPHIC RESPIRER, OR LUNG STRENGTHENING BREATHING-TUBE,

represented, full size, in the above woodcut, stands unrivalled in efficacy, convenience, and practicability.* Many years' experience and observation in the treatment of consumption, has produced in my own mind the conviction that the adoption of measures that will bring into activity the muscles of respiration, and increase the amount of air breathed (provided always that it is pure) to the full expansion of the air-cells, will not only *prevent* tubercular deposit or exudation in the lungs, but will do far more in effecting their removal when formed than any or all the drugs in the Materia Medica, whether applied to the surface of the body, introduced into the stomach, or inhaled into the lungs in the form of gas or vapor. You will, therefore, please not confound the respiration of *pure air*, here advocated, with the process called *pulmonary insufflation*, or with more philological precision, pulmonary atmiatry. The wonderful effects anticipated from breathing factitious airs or gases mingled in specified quantities with atmospheric air, have not been realized. We no longer hope to find in the inhalation of pure oxygen, or nitrous oxide gas, a stimulus to rouse the system from torpor, and to cure diseases resulting from obstructions, defective nutrition, and vice-assimilation; nor is nitrogen or carbonic acid gas a sedative to allay arterial excitement and remove hæmatosis.

In pulmonary tuberculosis the vital capacity is very largely diminished. A person with a vital capacity of 200 cubic inches

* *A*. Mouthpiece. *B*. Orifice to be left open while inhaling, and closed with the finger while exhaling. *C*. Orifice through which the expired air escapes. The orifice *C*, at the end of the tube, is only about one-fourth the diameter of the cylinder.

before the inception of the disease, would only have a vital capacity of 134 cubic inches in its first stage; 118 cubic inches in the second, while in the third it would be reduced to 98, or less than one-half that of health.

Hence the dyspnœa, the increased number of respirations and persistent rapidity of pulse. Inspiration is short, speedily checked, and succeeded by hurried expiration. Hence the want of breath, which is increased by the slightest exertion. Imperfect respiration results in deficient aeration of the blood and accumulation of carbonic acid in the system, and consequent depression of the vital powers. In rapid respiration the interchange of gases between the blood and the air is very limited, since the inspired air is not retained a sufficient time to reach the alveoli where the change takes place. You will bear in mind that the only part taken by the bronchi in the aeration of the blood, is simply conveying the air to and from the air-cells; and hence the importance of occasional full, deep inspirations. There are three well-marked degrees of inspiration. First, *ordinary inspiration.* Second, *deep inspiration.* Third, *forced inspiration.* In the first degree of inspiration, the air only penetrates into limited portions of the lungs; in the second, greater portions are filled; but it is only in the third degree, or *forced inspiration,* that it is introduced through the whole extent of the lungs. There are also three degrees of expiration,—ordinary, deep, and forced. It is not from any deficiency of *vital capacity,* before the inception of the disease, that so many die of consumption, but from neglect to use it. And as an inevitable sequence the shoulders droop, the thorax is flattened, and the lungs compressed. Hence the upper sections of the lungs are particularly obnoxious to tubercle. To the obliteration of the air-cells by compression, is added exudation or deposit. In pneumonia the exudation occurs mainly into the alveoli, into the walls of the cell, interstitial, or interlobular tissue. *Tubercle is deposited in the air-cells,* as the inevitable result of imperfect aeration of the blood from a deficient supply of pure air and imperfect inflation of the lungs. The closing of the air-cells, which prepares them for the exudation or deposition of tubercle, may and probably does result in some cases from congestion, pneumonitis, pleuritis,

&c., but in a very large percentage of cases, probably nine-tenths, it results directly from a flattening of the chest in the subclavicular regions, causing the ribs to press on the upper portion of the lungs, preventing the dilatation of the air-cells; and hence you will readily perceive the value of an *instrument* which, like the respiring tube, exercises and strengthens every muscle which takes a part in the inspiratory movement, and, at the same time, calls into active force the elasticity of compressed air during expiration, thus expanding the air-cells, increasing the vital capacity, purifying the blood, preventing the deposit of tubercle, and attuning every fibre to a higher pitch of health and every faculty to a more exalted joy.

DESCRIPTION OF THE STHENOTROPHIC RESPIRER AND DIRECTIONS FOR USING IT.—First, it is not a patented article, and can be used by any one. Second, it is made of glass, is easily cleaned, has no valves to get out of order, can be carried in the pocket without inconvenience, is always ready for use, and if accidentally broken it can be cheaply replaced. Any glass-blower can manufacture it. Third, its action is on the principle of the spirometer, compressing the air in the lungs. It admits the air freely during inspiration, while it regulates its escape during expiration. Its use consists in a prolonged, uniform, and gradual inhalation of pure air through it, while the orifices *B* and *C* remain open; and a similar prolonged, uniform, and gradual expiration through it, with the orifice *B* closed by placing a finger over it. A very little practice will render the use of the respirer quite easy, scarcely requiring more effort than is used in ordinary respiration. It should be distinctly understood, however, that the benefits that may be derived from its use, depend upon its being used in a regular and systematic manner. It should (to be effective) be used punctually and regularly every day at stated hours. The efforts should be gentle at first, and gradually increased each succeeding day. Should vertigo be experienced, which is sometimes the case, it should be discontinued for a few minutes or until it passes off. It should always be used in the pure open air, standing erect, with the shoulders well thrown back. It should be used at least three times a day; in the morning before breakfast, one hour

before dinner, and at some convenient time in the evening. Begin by gently breathing through the tube for two minutes each time the first day; the second day three minutes each time; increasing one minute each time every succeeding day, until fifteen minutes are occupied in its use; then commence again at two minutes, and increase as before until twenty minutes are occupied at a time; then use it ten minutes at a time three times a day, for at least six months. The habit should also be acquired of taking a deep, forced inspiration several times each day in the open air, and exhaling then slowly without the aid of the tube. Persons between fifteen and thirty-five years of age, may in this way increase the circumference of their chests from three to six inches.

N. B. Persons who have had hemorrhage from the lungs, should use the tube with great caution and only for a short time at first, increasing gradually the time and force. Should hemorrhage occur, the use of the respirer should be suspended for several days, and then cautiously resumed.

XLV.

AN EXAMINATION

OF

THE APPARENT CAUSES AND RESULTS OF TREATMENT IN ONE HUNDRED CASES OF PHTHISIS.

By H. B. Clarke, M.D., New Bedford, Mass.

As a contribution to the clinical history of Phthisis, I have consulted the notes of one hundred cases taken indiscriminately from my daily records. At the outset of the investigation I proposed to myself the following inquiries:

1st. To find the number of cases due to hereditary influence. 2d. To find the number of cases due to other influences. 3d. To find proximate causes. 4th. To find effects of alcoholic stimulants. 5th. To find effects of hygienic measures. 6th. To find effects of therapeutic measures.

Of the cases here considered seventy-one are those of females, twenty-nine of males; seventy-four have terminated by death, eighteen are still living, but without probability of overcoming the disease, four are living in apparently good health, while the final condition of four is unknown.

The *ages* of the patients who have died are as follows:

Under 10,	1 (at six months.)
From 10 to 20,	13
" 20 to 30,	23
" 30 to 40,	13
" 40 to 50,	13
" 50 to 60,	6
" 60 to 70,	3
At 70,	2
	74

Those who are living:

From 10 to 20,	8
" 20 to 30,	5
" 30 to 40,	4
" 40 to 50,	4
" 50 to 60,	2
" 60 to 70,	2
" 70 to 80,	2
	22

4 (unknown), between 30 and 40.

In answer to my first query: The influence of inheritance appears in sixty-eight cases; in twelve there are no data; in the remaining twenty most, if not all, were probably due to hereditary influence, though no cases of phthisis had occurred in the family so far as my informants knew. Practically, therefore, I may say all were due to hereditary influence.

Among those apparently least liable to the inheritance are cases like this. A lady, æt. 32, mother of two children, had flooding after the birth of the last child; afterwards had sore mouth; finally became anæmic, &c.; then had chronic peritonitis, dropsy, and diarrhœa, of which she died after about a year's sickness. The parents of this woman are still living and healthy; they had seven children, all of whom died in childhood or youth, except two, my patient and a sister who survives but is delicate.

In another case, also of a young mother, who died of pulmonary tubercle, there was no phthisis known in the family, nor did her appearance indicate in the least the tuberculosis cachexy, yet upon inquiry it turned out that her father was eccentric and drunken, and had brothers who were insane.

Three other cases occurred at the same time in one family, a son and two daughters. I could not learn that any member of the family had before this died of phthisis. During the development of the disease this family lived in a damp place, but were well housed and their circumstances seemed comfortable. The son, æt. 20, I was told had been feeble since seven years of age, having had scarlet fever at that time. A daughter, æt. 18 years, had been growing chlorotic for some time before consumption set

in. A second daughter, a babe six months old at death, had been ailing with symptoms of tuberculosis for three months previous. It could hardly have been a coincidence that all three of these cases should have terminated in consumption, had there not been an hereditary proclivity to that disease.

Thus, in regard to remote causes of phthisis, the result of this examination points to the hereditary influence as the one which overshadows all others.

Of the proximate causes there is not very general mention. The record shows the following:

Grief and anxiety,	8 cases.
Exposure in army life,	2 "
" in navy life,	2 "
Dampness, living in a basement,	2 "
" in a room over an open cistern,	1 "
" carriage washing as a business,	1 "
" cold sitting baths of an hour's duration to cure leucorrhœa,	1 "
Confinement at dress-making,	1 "
" in cotton-mill,*	1 "
" in photographer's room,	2 "
Drunkenness,	1 "
Chlorosis,	1 "
Measles,	1 "
Contagion (wife from husband),	1 "

In considering the exciting causes of phthisis, there is a difficulty in determining, among certain early manifestations of the disease, as to whether they are essentially a part of the final consumption, or whether they merely favor its development.

Such meagre numbers as are here given are of course quite insufficient for any important deductions, yet judging from the

* The patient in this case is a young girl, æt. 19, whose mother died of consumption, who has tried twice to work as a weaver in a cotton-mill. The first time she had been at work about a year, when she had a bad cough, worse on lying down and on hurrying, raising a frothy white matter, had shortness of breath, had been growing thin and lost weight, in a short time 21½ pounds. Under Ars. 8ˣ she at once got better, regained flesh and strength, went back to the mill in spite of my protestations, but after a few months' trial had a return of her trouble again, got Ars. 8ˣ, again got better, and is now at work as a housemaid, and is tolerably well.

pression derived from my entire experience, I should say that the proportion here shown of the number of cases (1 to 5) in which some exciting cause appears to have positively influenced the development of the disease, is not far from what larger numbers would show. And so also in regard to the kind of causes. Thus I am of the opinion that among the most potent of exciting causes will be found depressing emotions like grief and anxiety. Exposure also, when it implies, as in these cases, subjection to vicissitudes of weather, privation of food, &c.

Since attention has been aroused by Bowditch's suggestion of soil moisture as a cause of consumption, exposure to this influence and dampness generally has received perhaps more than its proper share of attention. Still it no doubt deserves to be considered among the most important of exciting causes at least, whether it have power to breed the disease *ab initio* or not.

Confinement, when it means deprivation of pure air and sunlight, as it generally does, must also be ranked among the greatest dangers to be avoided by those who are predisposed.

The influence of the use of alcoholic stimulants in promoting phthisis, seems from this list of little importance. Only one case of the one hundred showed this as an exciting cause. Two others of the number were in the habit of using alcoholic liquors moderately, without any apparent influence in hastening or retarding the development of the disease. The rest were not accustomed to their use.

Contagion has the same rank with drunkenness as an exciting cause, viz., one case in the hundred. This case, which came under my observation when the symptoms of the second stage were well marked, was as follows: Widow, æt. 28 years; her own family was free from phthisis on both sides, as far as she knew; her husband was delicate, and died of nasal hemorrhage which occurred during a fever. His family was consumptive, a mother and three sisters having died of it; she had a child by this husband; when three months pregnant the cough set in from which she was then suffering; the child died when three and a half months old, of diarrhœa. I assumed that this was a case of contagion, the woman having received it through the

XLV.

AN EXAMINATION

OF

THE APPARENT CAUSES AND RESULTS OF TREATMENT IN ONE HUNDRED CASES OF PHTHISIS.

By H. B. Clarke, M.D., New Bedford, Mass.

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Of the cases here considered seventy-one are those of females, twenty-nine of males; seventy-four have terminated by death, eighteen are still living, but without probability of overcoming the disease, four are living in apparently good health, while the final condition of four is unknown.

The *ages* of the patients who have died are as follows:

Under 10,	1 (at six months.)
From 10 to 20,	13
" 20 to 30,	23
" 30 to 40,	13
" 40 to 50,	13
" 50 to 60,	6
" 60 to 70,	3
At 70,	2
	74

Those who are living:

From 10 to 20,	8
" 20 to 30,	5
" 30 to 40,	4
" 40 to 50,	4
" 50 to 60,	2
" 60 to 70,	2
" 70 to 80,	2
	22

4 (unknown), between 30 and 40.

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Among those apparently least liable to the inheritance are cases like this. A lady, æt. 32, mother of two children, had flooding after the birth of the last child; afterwards had sore mouth; finally became anæmic, &c.; then had chronic peritonitis, dropsy, and diarrhœa, of which she died after about a year's sickness. The parents of this woman are still living and healthy; they had seven children, all of whom died in childhood or youth, except two, my patient and a sister who survives but is delicate.

In another case, also of a young mother, who died of pulmonary tubercle, there was no phthisis known in the family, nor did her appearance indicate in the least the tuberculosis cachexy, yet upon inquiry it turned out that her father was eccentric and drunken, and had brothers who were insane.

Three other cases occurred at the same time in one family, a son and two daughters. I could not learn that any member of the family had before this died of phthisis. During the development of the disease this family lived in a damp place, but were well housed and their circumstances seemed comfortable. The son, æt. 20, I was told had been feeble since seven years of age, having had scarlet fever at that time. A daughter, æt. 18 years, had been growing chlorotic for some time before consumption set

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XLVI.

STATISTICS

OF THE

COMPARATIVE MORTALITY IN THE CITIES OF NEW YORK, BOSTON, AND PHILADELPHIA,

UNDER HOMŒOPATHIC AND ALLOPATHIC TREATMENT.

By E. M. Kellogg, M.D., New York.

One year ago, at the Washington meeting of this Institute, I presented a report, which analyzed the mortality of New York City, during the years 1870 and 1871, according to the medical treatment employed in each case of death. In that report I stated that I would extend my investigations into other cities, and continue these researches until the mass of facts and figures was so large and so conclusive, that we could justly consider this question of comparative mortality as definitely settled beyond all controversy.

Now, I have the pleasure of presenting to this convention and the profession, a material addition to those statistics in the comparative mortality report of Boston, for the years 1870 to 1872, and of Philadelphia, for the year 1872. These reports have been prepared from the official records by impartial and reliable persons, whose names bear witness to the fairness and thoroughness of their work. The Boston data have been compiled by Elliott Russell, Esq., and the Philadelphia data by Pemberton Dudley, M.D., under my direction, and at the expense of the Homœopathic Mutual Life Insurance Company of New York.

Before giving the figures, however, let me say a few words in

reply to a question, which has been put to me scores of times during the past year, and which I wish to answer here once for all, viz.: Of what value is a statement of the mortality in any city under homœopathic and allopathic treatment, unless. you can also give the number of cases treated by each of the two schools? Or, in other words, what is the ratio between the number of cases treated and the number of deaths occurring in the practice of the two sets of rival practitioners?

This question loses its apparent importance, when we reflect that the average practitioner of one school treats, in all human probability, about as many patients per annum, as the average practitioner of the other school. This must be approximately true, and is certainly exact enough for all practical comparisons. My statistics of last year appeared, not only in medical journals in almost every civilized nation, but also in many of the secular newspapers; and in many instances they provoked replies and criticisms from old school brethren. Almost all of these replies ring the changes on this question, which exposes the only apparently weak point in those statistics.

To illustrate this, let me state the argument used by a Vermont allopath, as published in the daily paper of his town. "Suppose," said he, "this Dr. Kellogg should come to this place, consult the death register, and find that during the past year Dr. A., who is an allopath, had lost twenty patients, and that Dr. H., who is a homœopath, had lost but one patient in the same length of time, would he be justified in rushing to the printing office and publishing to the world, that the allopaths of our town lost twenty times as many patients as the homœopaths? Most assuredly not; it would be his obvious duty to learn first how many patients each physician had treated; the allopath might have treated five hundred cases and lost twenty, while the homœopath might have had for his only patient the one who died. Therefore," he triumphantly argues, "as Dr. Kellogg does not pretend even to give the number of cases treated, his comparative mortality tables are not of any value; they are utterly worthless."

This is the plausible and specious argument which has been a stumbling-block to many of our brethren, and which can yet be

so effectively and easily met. I fully and unreservedly admit the point made in the case above cited, viz., that it would be eminently unfair and unjust to take the mortality occurring in the practice of any two physicians, and by it claim to decide upon the merits of the two systems of practice. One of them might be doing a much larger business than the other, or one might be a practitioner of many years' standing and experience, and the other be a mere beginner, and there would probably be so great a difference in the number of patients treated by these two as to render any fair comparison of their success simply an impossibility. But when I compare in this way all the practitioners in a large city, nay, in three large cities, numbering hundreds and thousands of physicians, including all kinds and grades and ages, old and young, good, bad, and indifferent; those who are on the topmost round of the ladder of success as well as those who are struggling to take the first step upward; when, I say, I take all the physicians of the two schools *en masse*, I hold that I am correct in assuming that the average homœopath on the one side treats as many cases per annum as the average allopath on the other, and consequently I maintain that these tables of mortality, as they stand, are a correct exponent of the relative success of the two rival medical systems.

With this statement, and with the hope that they may aid in convincing the public of the vast benefits conferred on mankind by the homœopathic system of medical practice, I herewith submit the following table of the

Comparative Mortality in New York, Boston, and Philadelphia.

ALLOPATHIC.					HOMŒOPATHIC.				
City.	Year.	No. of Physicians	No. of Deaths.	Ratio.	Ratio.	No. of Deaths.	No. of Physicians	Year.	City.
N. Y.,	1870	944	14,869	15.75	9 00	1287	143	1870	N. Y.
"	1871	984	15,526	15.78	7.97	1243	156	1871	"
Boston,	1870	218	3,872	17 76	10.05	402	40	1870	Boston.
"	1871	233	3,369	14 46	8.25	363	44	1871	"
"	1872	233	4,575	19.63	8.26	446	54	1872	"
Phila.,	1872	655	12,468	19.03	12.87	2162	168	1872	Phila.
Total, . . .		3267	54,679	16.73	9 75	5903	605	Total.	

Where Homœopathy loses *ten* patients, Allopathy loses *seventeen*.

XLVII.

ALCOHOL IN DISEASE.

By Daniel Holt, M.D., Lowell, Mass.

The question regarding the use of alcoholic liquors *in health* is now pretty well settled in this community in the negative. *In disease*, an important question is, when and how far their use should be adopted? It is admitted that alcohol is not a product of nature, but is evolved from the destruction of vegetable substances by decomposition. It is not nutritious in the ordinary meaning of the term, but its action upon the system is powerful for good or evil, according to the mode in which it may be used.

From about forty years' study of its nature and effects upon the system, and an examination of much that has been written upon the subject, I have come to believe that it has been altogether too freely and too indiscriminately used, both by the medical profession and by the public.

In diseases generally, both acute and chronic, which the physician is called to treat, it is very seldom necessary. It is useful in what may be termed the *catastrophies* in medicine, as, for instance, in shocks to the system, such as occur in severe injuries from railroad accidents, and in injuries received in battle. Here the vital powers are not exhausted but temporarily prostrated, and danger is often great; and here it should be administered in small quantities often repeated, so as to get the stimulating effect. In such instances it acts, as it were, as the spur to the jaded horse, and speedily accomplishes its purpose.

It should not be given or continued to get its narcotic or in-

toxicating effects, nor until any appreciable quantity shall have entered the blood, which is always injurious.

Dr. Munro, Professor in the London University, has, by a series of experiments, discovered that alcohol, in *any* form as it exists in spirituous liquors, when continued even in small quantities, disturbs and destroys the regular form of the blood-globules; hence the great variety of disturbance of the system of rum-drinkers, even before the brain and nervous system become involved.

These blood-globules or disks are, by physiologists, now supposed to perform the office of carrying the oxygen received into the lungs in the act of respiration through the arteries to all parts of the system; that, in their connection with the veins in the minute capillaries, these globules continually throw off their oxygen and receive the carbon or effete and worn-out particles of the system, and returning through the veins as dark venous or impure blood, to the heart, then again to the lungs, where the carbon is in turn exchanged for oxygen, and the blood is again purified.

Dr. Munro states that when alcohol is in the blood these globules are torn and nearly destroyed, and hence but poorly perform their office; and hence, too, the peculiar look of the rum-drinker, whether an inebriate or not.

The second condition in which alcohol is useful is in what are called *crises in disease.*

These conditions, though not so common as formerly, do sometimes occur, and if the vital powers are prostrated instead of exhausted, alcohol is useful if given as before, so as to get its stimulating effect.

We have another condition where its use is more questionable, and there may be allowable differences of opinion in regard to its value.

I refer to extreme exhaustion of the system from disease or old age. Dr. Millar, of Glasgow, a very high authority, is decidedly against its use here, as in these cases the vitality is exhausted instead of being merely depressed, and he thinks it tends to hasten dissolution.

In advanced cases of pulmonary consumption, for example,

where the waste of the tissues is greater than the supply, it has been supposed to prolong life for a time by retarding this waste.

This possibly may be so, and yet under any other circumstances it would be detrimental, inasmuch as this worn-out matter should be thrown off, not retained. And yet this is the very matter which produces the fulness of body in the drinker, and which is the effect produced and seen by those who believe that alcohol is food.

There can be no question that the rotund form of the alcohol-drinker, whether his drink be in the form of beer, ale, wine or brandy, is the product of an unhealthy state of system. He carries about with him that which should be eliminated from the system and its place constantly supplied with new.

Hence the fact that the drinker of alcohol uses less substantial food than the water-drinker, and the healthful preserving process of waste and supply in the system is interfered with; consequently, we see the liability of the former to a variety of diseases which often prove fatal.

These are the only conditions of importance in which alcohol is beneficial, or in which a substitute cannot be had. Many forms of continued disease, as fevers, where years ago alcoholic liquors were considered essential, are now better treated without them.

It is possible that the type of disease, or of constitution, may be setting against alcohol in all its forms; for it certainly seems to be less essential in disease and more destructive in health than formerly.

I verily believe there is an intolerance of the article in health and disease, and that we must give up alcohol or return to a past and lower type of civilization, where it may be tolerated.

Types in disease and constitution advance from time to time, and it would be no more strange that we should outgrow our tolerance of alcohol, both in disease and in health, than that the present living forms of animal life should be ill adapted to the conditions of the earth in the geologic times of the drift or of the carboniferous period.

Thus the theory that the highest type of civilization is in reality outgrowing the period of the reign of alcohol, may not

be considered as altogether visionary or improbable. At any rate the general impression exists, and no doubt is true (wrongly attributed to impure or adulterated spirits), that the purest alcohol, properly diluted, is much more disastrous than a century ago.

In my opinion, we must forego our high civilization, our science and art, our orators and poets, or our alcohol. There is an irrepressible conflict between them.

XLVIII.

THREE CASES CURED BY NATRUM MURIATICUM.

By William Gallupe, M.D., Bangor, Me.

Case I.—*Periodical Sick-Headache of five years' standing.* Mrs. E., æt. 35; nervo-bilious temperament; tawny complexion, and of rather spare habit. She has been much troubled for five years by attacks of sick headache, of a severe character, which come on periodically, commencing a day or two before a catamenial period, the menses being regular and rather free in quantity.

The attacks were generally first felt early in the morning, even before rising, increasing during the forenoon; the sensation being that of a tight pressing ache across the forehead and across the eyebrows, and extending outwardly to the temples. A confused feeling of the brain, and a confined, full, and compressed feeling over the whole frontal portion of the head, with a desire to lie down and be quiet and still, with occasional nausea and even vomiting, were symptoms which were usually developed, and lasted during the catamenial period of four of five days. There was a marked desire to keep still and quiet during the entire course of the headache.

I was called to her at the onset of one of these attacks, which came on two days before the expected menstrual flow, and with such regular procedure that she predicted a severe attack, and one that would last throughout the entire catamenial period. I gave her a single dose of Natrum mur. 10^m, on the tongue, and requested her to note any effects that might occur, and report

the same to me. About ten days afterward she reported that the attack of headache had passed off during the afternoon and evening, the menses came on during the next day, and ran the usual course without being accompanied with headache at all, and with less general malaise than usual. I gave her a powder of Natrum mur. 10^{m}, to be used in case of a return of a similar attack, but not otherwise. Two years afterward she still had this powder, as she had had no return of the headache.

CASE II.—*General Debility of three months' standing.* Mrs. S., of nervo-sanguine temperament and light complexion, complained, in February, 1872, of feeling very languid and tired almost all the time for the preceding three months, or longer; every effort, however slight, appeared to produce almost complete exhaustion, which would be succeeded by a desire to sit still, or to lie down and sleep. She was averse to making any exertion, which was quite unnatural, as she was a lady of active habits. She also felt despondent and lifeless; sleep was dull, heavy, and unrefreshing, awaking often during the night, and getting to sleep again with difficulty; bowels generally regular.

I gave her a single dose of Natrum mur. 10^{m}, dry, on the tongue, and requested her to report to me in from four to seven days. At the end of a week she told me she had experienced great relief within the first twenty-four hours after taking the medicine; that on the second and third days the improvement was very marked; and that she had been improving daily in strength and vigor, slept quietly at night, and felt that she was restored to her accustomed health.

CASE III.—*Periodical Hemorrhage from the Bowels, of three and a half years' standing.* Miss F., of nervo-sanguine temperament and light complexion, has been troubled with frequent attacks of cutting pains about the umbilical region, during the past three and a half years. These would commence with a sensation of fulness and occasional sharp, shooting pains through the centre of the abdomen, with occasional emission of flatus, and in twenty-four or thirty-six hours thereafter there would be a free flow of fresh blood per anum, passing freely and easily, without uneasiness or irritation of the anus or rectum, accompanied with the subjective sensation that it came from the centre

of the bowels. These hemorrhages have always commenced in the morning, on rising, two or three flows occurring in as many hours during the morning, and for three or four days in succession; when the hemorrhage would cease. During the first two days the blood was fresh and liquid, but towards the close of the flow the blood became of a more or less darkened hue, and at this time a sharp twinging sensation would be felt up the rectum, the anus still remaining free from all irritation. The amount of blood voided at first would be about half a pint at a time, gradually lessening in quantity as the third and fourth days were reached. The hemorrhage rarely continued longer than the fourth day, and the blood never passed in clots. The sensations about the umbilical region, of pain, soreness, and fulness, were always relieved by the flow of blood. No unnatural sensation had ever been experienced about the region of the liver or stomach.

These hemorrhages bore, in many respects, a striking resemblance to the catamenial flow, the discharge occurring per anum, however. She had passed her climacteric period some twelve years prior to the commencement of these periodical hemorrhages, which came on about every four weeks for a year and a half, but have lately appeared every three weeks with great regularity.

Lachesis 30th, two doses, appeared to check the flow, so far as quantity was concerned, for a time; but the hemorrhages reappeared as before. I then gave Lachesis 2^{c}, with somewhat better effect, and I thought this dose would control the trouble altogether, which, however, it failed to do. Lachesis 10^{m}, which was then administered, lessened the quantity and mitigated the pains somewhat, but had no other effect. Nitric Acid was used, first in the 30th and afterwards in the 200th preparations, with some controlling influence; but yet the attacks would return. Nux vomica and Causticum were likewise used, with but slight beneficial effects. During a visit of four or five months to the vicinity of New York City, the attacks came on with greater violence, the flow being more profuse, occurring four or five times during the day, lasting longer, and with an occasional flow of blood between the attacks, which had never occurred before.

Nitric Acid was prescribed by two medical men, and taken in the 400th and 500th potencies, with but little mitigation of the hemorrhage or pains.

At length Natrum muriaticum, in pellets of the 500th potency, was given during the second day of an attack, at 5 P.M., with an entire check of the pains and hemorrhage. She felt very much relieved during the first twenty-four hours, and gradually all the symptoms passed away. No hemorrhage has occurred since that time, five months having already elapsed. There had been some fulness about the umbilical region from the time of the first attack of hemorrhage, which had gradually increased, but there had been no particular tenderness or pain except during the attacks of hemorrhage. This, however, passed away gradually under the action of the remedy, after giving a dose of the 10^m twenty-eight days after the first dose.

Natrum mur. exhibits in its pathogenesis the following symptoms: Cutting pains in the bowels every day, early in the morning; pinching, tensive, contractive pains, with inflammation of the bowels.

XLIX.

SMALL-POX AND ITS PROPHYLACTICS.

By Jonathan Pettet, M.D., Cleveland, O.

Preparatory to reading this paper, it will be necessary to allude to the paper presented on Tuesday. (See Section II, Art. XLII.)

In the course of the last twenty-three years, Dr. Ritter has experimented upon thousands of sheep, with the sheep-pox, or cow-pox generally so considered. After losing some five hundred sheep, he became a homœopath. From his experience he is convinced,

I. That inoculation does not prevent the sheep contracting the disease during an epidemic, nor does it lessen the mortality.

II. That the sheep may be protected by the internal administration of the virus in appreciable or in infinitesimal doses, such protection lasting the rest of their lives.

III. That every stage of the disease may be shortened by the same remedy administered in the same way.

I therefore ask the liberty of reading and inviting your attention to the following

Query in Reference to Small-Pox and its Prophylactics.

In Germany there appears among sheep a disease which often sweeps away whole flocks, or ruins them for further breeding purposes. This disease is known as *Schaafblattern* or sheep-pox. The means taken by homœopathists to prevent this disease and to cure it, are nothing more nor less than the administration of the

poison of the same disease in infinitesimal doses. Thousands of dollars' worth of this virus has been used by us in America. Cow-pox is a disease which appears spontaneously in large dairies of every country, and I have met many persons who have unwittingly contracted the disease on the hands from milking cows affected with it. Mr. Lower, a well-known and reliable dairyman of West Cleveland, assures me that he has more or less of it among his cows nearly every year, and I hope to be able at some future time to verify his statement.

The third form is that which appears in horses, and is called *grease heel.* I would here caution the profession against confounding it with spurious grease or *scratches.* We have some evidence that a similar or identical disease may affect only the horse's mouth. The evidence in favor of its value, however, is very meagre and merely negative.

A well-known disease of the human race resembles these of animals very closely. I allude to small-pox.

The similarity of these diseases would naturally lead one to infer that they arose from a common origin; but I am not convinced that this can be established beyond cavil, and would be very happy to aid in settling the question by any investigations in my power.

There is an artificial disease acknowledged by us all as the humanized cow-pox, and in its progress it is the mildest of them all, and pursues a much more rapid course. I would hence recommend its use in cases of sudden and proximate danger from small-pox.

The great similarity of these diseases, and also the similarity of their common names, would lead me to suggest that their technical generic names ought to be the same, and that they be distinguished from each other only by an adjectival word indicating the animal or the part of the animal to which they are peculiar. For instance, let us call them respectively *variola ovium, variola vaccina, variola equina,* and *variola hominum,* and their poisons as *variolinum ovium, variolinum vaccinum, variolinum equinum,* &c.

Now that all these diseases are so similar in all their different stages, and that it is well shown by the experience of the Drs.

Ritter, that the internal administration of the same poison in homœopathic or infinitesimal doses has cut short the disease in every stage and prevented it when soon enough given, I therefore call the attention of this learned body to the following query, and I appeal to the profession to aid me in answering the important question.

Query.—Will cow-pox virus given to man internally, either in appreciable or infinitesimal doses, produce the same prophylactic effect against small-pox as when injected subcutaneously in its crude form or inserted as is usually done?

L.

ANAL AND RECTAL FISSURE.

By William Eggert, M.D., Indianapolis, Ind.

This affection, which is of quite common occurrence, has not received the attention it most certainly deserves. Homœopathic as well as allopathic literature has little to say about it, and in most instances, when mentioned, it has been in complication with or confounded with hæmorrhoids or the irritable ulcer and rhagades of the anus and rectum. Even in Rückert's "Clinical Experiences," not a single allusion is made to it. Its independent pathology is almost entirely overlooked, and in therapeutics it has been by both schools, until very lately, assigned to the knife of the surgeon. How often does it happen, that when called upon to treat a case of hæmorrhoids, after having succeeded in reducing the protruding tumors, removing the frequent and debilitating hemorrhages, and restoring the bowels to normal action, we still find our patient dissatisfied. Why? Because he suffers from excruciating pains during stool, or long afterwards, no matter whether the fæces be hard or liquid.

Thus much for one class of patients. But there are others who allow us to remain in ignorance as to their real condition, on account of an extreme modesty. I refer to the female sex, and in particular to young and unmarried ladies. We meet with this affection more frequently in women than in men, although children are not exempt from it. Its position is generally dorsal, but cases are found where it is perineal or lateral. We find a long narrow ulcer frequently emanating from a small circular ulcer, which may be detected easily, either per speculum

when high up in the rectum, or, when at the verge of the anus or commencing there, by separating the buttocks and anus with the fingers. If the fissure is not of syphilitic origin, we hardly ever find more than one, which will bleed easily, particularly if not of very long standing. It presents a whitish or grayish appearance, with more or less indurated edges, and discharges a yellow or whitish pus. But if of syphilitic origin, we often find several fissures, either independent of each other or irradiating from a certain point; their edges are always elevated and hard; when the bottom of the ulcer lies deeply, it has a lardaceous appearance; the secretion is corroding, acrid, and frequently bloody, which is rarely the case with the non-syphilitic fissure. Stools are usually attended with excruciating pain, either during or some time after the evacuation; and walking and sitting are often interfered with.

It is strange to observe how this affection, so insignificant in its appearance, will wear out, nay, even break down the patient's health and constitution, and stranger still, that patients often endure torture for years before seeking the advice of a physician.

Hypochrondria as well as hysteria are common with persons thus afflicted. If the situation of the fissure be high up in the rectum, it is less painful than when at or near the verge of the anus, on account of the great mobility of the external sphincter as well as the great supply of nerves in that locality. The sensitiveness to touch finds its explanation in the same facts, and it is by no means uncommon that in the fissure as well as in the simple ulcer one or more nerves become fully exposed. This may also explain the fact, that a person will more willingly grant an examination of any other part of the body, no matter how painful it may be or how great the exposure, rather than subject himself to an inspection of the anus or rectum, or other manipulations of those parts. I have seen powerful men tremble at the very thought of it, men who would hardly flinch when having an arm amputated; and if the surgeon should fail to be successful with an operation, it will require extraordinary efforts to get the patient to submit to a second trial. The edges of these fissures are sometimes trimmed with polypoid excrescences, and true polypi, either fibrous or gelatinous, have been found at either

terminations of the fissure. But the generally observed complication of fissure is undoubtedly the stricture of the sphincter, by which it is distinguished from a mere crack, or from rhagades, so often present with hæmorrhoids. This constriction of the sphincter, which is liable also to become hypertrophied, has been by some authors considered to be of a neuralgic nature; while others deny this, and as it appears, not without good reason.

A fissure may terminate in a blind fistula, and we may be particularly apprehensive of this if it emanates from a rather deepseated ulcer. The surgeon, therefore, will do well to use the probe, in order to establish the diagnosis correctly. Its use will also further to a great extent his decision as to whether he will have to adopt surgical or medical treatment.

I have already stated the great objection patients have to examinations and manipulations of the anus or rectum. I will mention briefly, therefore, a few symptoms, by which the physician may with some degree of certainty diagnose the existence of fissure, and avoid the examination, without falling into the common error of putting the complaint down erroneously to the charge of external hæmorrhoids. It is not the stricture of the sphincter alone, as some authors assert, because such may be found as well without any fissure; but if, with the stricture, we hear of excruciating and tearing pains, either during an operation of the bowels or for a longer or shorter period after such operation, or with the escape of flatus, or even without any special cause excepting exercise, moderate though it may be, and in addition, perhaps, uterine or urinary difficulties, we may be well assured of the presence of a fissure. Pains caused by hæmorrhoids alone are more of a dull, burning, sore, itching, and smarting character.

The causes and complications of fissure are manifold. Most prominent are: Hæmorrhoids; parturition; uterine displacements, particularly anteversion and retroflexion, with a train of urinary difficulties and nervous agitations; constipation; diarrhœa; dysentery; polypi; syphilis; chronic proctitis.

Treatment.

The same differences of opinion prevail regarding the treatment of this affection as are found regarding that of fistula in ano. Many ignore the possibility of successful medical treatment entirely, and rely on the knife; while others look with some degree of contempt on the knife, and pretend to accomplish everything with remedies. I do not doubt for a moment that these opposite opinions are both the offspring of honest convictions, but I do not believe that large experience can corroborate them. For myself I believe, that just as certainly as some cases require the knife, so certainly can the majority of cases be cured with remedies alone. Nor do I think it wise for any physician, and particularly a member of our school, to resort to the knife without having first fairly tried the agents of our Materia Medica.

The surgical manipulations are threefold, and resemble those for fistula in ano. These are: incision; tearing the tissues asunder; and forcible dilatation of the sphincter. These methods have each their advocates, and comparing results it is difficult to say which deserves the preference. I prefer the incision. I shall, however, say no more on this subject, because the details of these operations can be found in any good work on surgery. My object is to lay more stress in this paper upon the medical treatment, which may be classed as internal and external.

It has always been an interesting study with me, to compare the treatment of the different schools in all cases of disease; and I intend to do so briefly here. Nowhere can I find in allopathic literature (and I have searched extensively), a case that had been treated with internal remedies alone, nor do I even meet the slightest recommendation to that effect. Allopathic treatment is always a combined internal and external treatment, and the medicinal treatment of that school is of recent date. They recommend the following remedies to be taken internally: Magnesia; Sulphur; the compound of Aloes, Nux vomica and Iron, or a confection of Senna and Sulphur. Combined with either of these are recommended to be applied externally, ointments of Zinc, Belladonna, and Opium; Hydrargyri subchloridi, Opium,

Belladonna and Sambucus; Acid Nitrate of Mercury; Nitrate of Silver; or Belladonna alone. Extreme pain is counteracted with Opium and galls ointment, with Bromide of Potassium and Glycerin; or the ice-bag. (The latter application I consider very efficient in extreme pains after a surgical operation, as well as for distressing proctalgia, and it ought to be tried if remedies fail to allay the suffering.) Dr. Van Halsback states that he has succeeded in curing fissures which have resisted even the division of the sphincter, by introducing, morning and night, a tent moistened with a solution of one part of Tannic Acid to sixteen parts of Glycerin. The bowels are to be kept open.

We perceive at a glance the object of these prescriptions and the principle that underlies them. The possibility even of a constitutional disturbance is completely ignored, and the affection is treated as one purely local. Hence the frequent relapses we are called upon to witness, notwithstanding the strenuous denials which come from the other side. I could point from my record to quite a number of cases of this nature. The disease is suppressed but not cured, and the patient may often have reason to congratulate himself, when the local manifestation returns instead of some more vital organ becoming the seat of disease.

How different is our mode of treatment. I shall try to lay down here my own experience. First, discriminate between cause and effect, because it is impossible to effect a permanent cure if the cause remains unremoved. Thus it follows that if constipation, displacement of the uterus, or hæmorrhoids, &c., are the cause of the disease, or if these affections have at least become disturbing or irritating elements, they must be removed first of all; and again, if we are successful in removing these disorders we shall often exterminate the fissure likewise, although the remedy we have employed may apparently not exactly correspond with the anal and rectal symptoms. The explanation of this fact I consider twofold. 1. It may be that the remedy employed has not been so extensively proved as to cause anal or rectal symptoms; or 2. The remedy exerts its healing influence indirectly by giving to the parts affected that great essential—rest. I do not intend to point out a line of treatment affecting the causes, but I shall here give the indications by which a remedy may be

successfully employed in cases of uncomplicated fissure, or in cases in which the complication has been removed, while the fissure remains. Let us discriminate carefully as to whether we have to treat a mere ulceration of the anus or rectum, or a fissure alone, or both. In doing so we shall limit in number the choice of our remedies. For the ulceration merely I have successfully employed Arsenicum, Carbolic acid, Hamamelis, Hydrastis, Mercurius jodatus, Natrum muriaticum, Pæonia and Phosphorus, but with none of these, excepting Pæonia, could I remove a single fissure. The remedies for that purpose are not many. Nitric acid, Pæonia and Thuja head the list; next follow Causticum, Graphites, Ignatia, Lachesis, Mercurius, Mezereum, Natrum muriaticum, Petroleum, Sepia and Sulphur. Nitric acid would often cure hæmorrhoids associated with fissure. At other times Nux vomica or any other remedy may relieve the hæmorrhoids, but leave the fissure untouched. For such cases I prefer Nitric acid, particularly if the patient has been in the habit of taking much mercury, and more especially if he was formerly afflicted with syphilis. But these last-named conditions do not need to be present if the symptoms otherwise correspond. I have used the Nitric acid with equal advantage in the 3d and the 200th dilution. The specific influence of Nitric acid is mostly at those points where the mucous membrane merges with the skin. This, I think, is a general observation which would suit our case exactly.

But now a glance at the symptoms of *Nitric acid.* On going to stool, pain in the rectum, as if something were torn away. On going to stool twitchings in the rectum, and spasmodic contraction of the anus many hours afterwards; smarting more in the rectum than in the anus immediately after stool, and continuing two hours. Contraction of the anus almost every day. Heat and burning at the anus after stool. Twitching and scraping sensation in the rectum and anus after stool. Proctalgia. Prolapsus ani. Humid moisture on the anus. In addition to these symptoms having special reference to the rectum and anus, let me add that Nitric acid is homœopathic to a mind disturbed about its disease, sad, desponding, or irritable, as well as to a tendency to looseness of the bowels, or, in a less degree, to con-

stipation, and we have before us all the characteristics of this disease.

Thuja occidentalis is the next remedy I think of. Referring to the description of fissure, we find it stated that frequently its edges were found trimmed with some kind of polypoid excrescences, and that even true polypus was not uncommon. These are the cases for which I find Thuja to be indicated (Calcarea carb. always failing). If, in addition to this indication, the patient has varices here or there, or if he had in former times condylomata of any kind, which had been clipped or burned away, or if the urinary organs partake in the general suffering, the indication will be stronger still. The symptoms of the anus and rectum are: Stool oily and greasy; painful constriction of the anus during stool; offensive perspiration at the anus and perineum; sycotic excrescences at the anus. In two cases I treated, Thuja, although well indicated, effected a cure only partially. I followed it with Nitric acid and completed the cure. I have seen good result from the 200th potency and upwards only.

Pæonia I next refer to, a remedy almost unknown to many, much neglected, imperfectly proven, hardly ever abused, and I trust that my allusion to it here will not lead to its abuse. Its known virtues are mostly gathered from the clinic. The symptoms given by Hartlaub and Trinks, with reference to the anus are: Painful ulcer at the anus, with exudation of fetid moisture, extending towards the perineum. My attention was first called to the remedy by a paper from Dr. Ozanam, read before the International Congress at Paris, 1867. In his report, favorable mention is made of this remedy in the treatment of different kinds of chronic ulcers seated on parts of the body below the umbilicus. I can corroborate his experience with my own. From several cases I select one. A gentleman of wealth and culture, aged 52 years, nervous bilious temperament, and who at first sight would indicate the confirmed hypochondriac, applied to me for aid in regard to anal and rectal difficulties. He never had tried homœopathy, and was almost unwilling to do so now, were it not to gratify his friends. He frankly confessed that he had no faith whatever in our system, to which I replied that faith was not needed at all, and that if his case was curable, he would

get well without faith as well as with it, and that all I asked for was a fair trial. This he promised to give. History: Has been afflicted with hæmorrhoids, fistula, and fissure for eighteen years; has been cauterized and otherwise operated upon three times, by some of the best surgeons of New York, but ineffectively, and he became worse than ever. Had never had syphilis. There was loss of appetite, constipation, great pain during and after stool; sleeplessness; emaciation; extreme nervousness; fainting spells from general debility are of daily occurrence; headache and vertigo when moving about much; the least exertion throws him into a perspiration, and exhausts him for hours; a disagreeable smell, hard to describe, emanates from the body, no matter whether the skin be moist or dry; shortness of breath when exercising; great pain in the small of the back; depressed spirits, much troubled about his health; feels generally better when resting, and worse when moving about much. Inspection of the anus and rectum by separating the buttocks revealed the following conditions. All the surroundings of the anus resemble a purplish hard mass, with a thick crust covering the entrance to the rectum; the slightest touch caused him to scream, so intense was the pains. I refrained from further examination and ordered a tepid hip bath of fifteen minutes' duration, together with a glass of California sherry and a cracker, and coming out of the bath to have the anus lubricated with a solution of carbolic acid in glycerin, and to remain in bed or on the sofa. These measures were to be repeated in twelve hours, and then to be followed with one, or if necessary with two, enemas of tepid starch-water, until the bowels were freely evacuated. This done, I proceeded to make another examination. The crust had dropped off, the inflammation was less and likewise the tenderness. When introducing the index finger into the rectum, it met with a firm resistance from the contraction of the sphincter. With gentle perseverance I succeeded at last in introducing the finger, and finally the anal speculum. At the verge and the entrance there were several small ulcers visible, seated upon inflamed bases, and touch proved them to have elevated and indurated edges more than did sight. The examination was still very painful, and every further effort caused considerable hemor-

rhage; the patient became covered with clammy perspiration and fainted. (I gave him Hepar[200].) From these ulcers a fissure issued and was buried in the folds of the rectum. There were several clefts also, remnants of badly operated or unsuccessful treated fistulæ; but the probe could not discover any burrowing process. The whole mucous membrane at the verge and higher up was studded with ulcers, cracks, and rhagades, presenting a disgusting appearance. The coating of the rectum was purple and congested, the veins were congested, but not to such an extent as to cause much trouble. Gentlemen, you will agree with me when I pronounce this to be a very bad case, with an unfavorable prognosis. Two remedies presented themselves, viz., Psorinum and Natrum muriaticum. I gave the former in the 200th potency, one dose every other day for a week, and then to be left for one week without medicine; ordered a hip bath every other day, and one or two glasses of sherry every day.

No change, however, occurred. Considering Psorinum still strongly indicated, I gave him the same in the 100th potency, and in the same manner as I had given the 200th, and waited two months to see if any improvement might be perceptible; but in vain. I then gave Natrum muriaticum, and followed it up in the same manner as I had done with Psorinum. After four months there was undoubtedly a change for the better, so far as his general health was concerned, but the anal and rectal symptoms had not changed. I almost became discouraged, and so did my patient. Finally I decided to give Pæonia 3d decimal, three or four drops, in a little water, every morning, noon, and night, and the same to be applied externally. The result was magical. In two months my patient was discharged cured, and has remained a well man during the past two years. Pæonia is indicated for the irritable ulcer at the anus, and for fissures emanating from such ulcers. It may be applied internally alone with good results; but the additional external application will hasten the cure.

Ignatia amara.—Some practitioners tell us of great results accomplished with Ignatia. It is strange that I never could succeed with it. It has done me good service in cases of fissure complicated with hæmorrhoids, and even with prolapsus recti,

particularly so if there are pains shooting upwards into the rectum or abdomen, and this the more, if the pains become aggravated when the stool is loose. It has proved to be an excellent intercurrent remedy in controlling severe proctalgia, but it never effected, in my hands, a cure of uncomplicated fissure or ulcer. Here are the symptoms with reference to our subject: Contraction of the anus, unattended with pain; a kind of shrinking, which lasts many days. Constriction of the anus in the evening, returning the next day at the same hour; painful when walking. A short time, or immediately after stool, pain in the anus, similar to that which proceeds from blind piles or a laceration. Pain in the rectum similar to that of hæmorrhoids, constrictive and smarting, like that of a wound. One or two hours after stool pain in the rectum, as after blind piles, consisting of constriction and smarting. I give the 200th potency, and in highly nervous persons I go higher still. The best time to give it is in the morning. A comparison of this remedy with Nux vomica in the treatment of rectal diseases is a highly interesting and profitable study, and should not be neglected.

Sulphur.—Next I speak of Sulphur. Undoubtedly diseases of this kind are in most instances the offspring of psora, and thus it is that antipsorics are so often indispensable. We meet frequently cases that will not yield to any single remedy, but will require a course of remedies in rotation; or we may find that a remedy, no matter how well chosen, will fail to accomplish anything like our expectation. Then Sulphur or Psorinum may be called into service with great advantage. In very scrofulous persons it is my custom to commence the treatment almost invariably with either Sulphur or Psorinum, provided the symptoms point to them, which usually is the case. The symptoms are as follows: Tenesmus for an hour after having been at stool; the pain in the anus prevents his sitting down. After stool, pulsating pain in the rectum, lasting during the whole day. After stool constrictive pains in the anus. After one difficult, but not hard stool, lancinations from the anus towards the rectum, so violent as almost to cause syncope, afterwards still and prostrated. At night cannot rest either in lying or sitting posture, on account of lancinations, and a kind of painful smarting at the anus. Swelling and

soreness of the anus. Stitching at the anus. Stitching, soreness, and discharge of acrid fluid from the anus. The first effort to stool is very painful, compelling the patient to desist.

I give Sulphur only in high attenuation, and rarely repeat the dose, or if so, I give it still higher. But we must be patient and wait.

For ladies in the climacteric period I recommend Lachesis and Sepia. Among this class of patients anal and rectal affections are quite common. Both remedies have prolapsus recti, constriction and pain in the anus and rectum during or after stool. With Sepia the pains extend into the perineum, the vagina, and sometimes even into the abdomen. Both have discharges from the rectum, independent from the stool, but that of Lachesis is mostly bloody, while that of Sepia is mostly mucus. The Lachesis pains are more inclined to be beating and hammering, while those of Sepia are stinging and tearing. I favor the 200th potency.

Symptoms indicating fissure, or at least strongly pointing to it, may be found under Causticum, Graphites, Hepar, Mercurius, Mezereum, Natrum mur., Nux vomica, Petroleum, and Silicia; but my acquaintance with these remedies with reference to the subject presented is limited. Still, any one reading provings of these remedies, will admit that they have a more or less close relation with it.

All of them have constriction of the anus either during or after an evacuation. Causticum has served me in cases, where the fissure has a tendency to dry up; there was little matter discharged; the edges had a quite darkish hue; walking caused considerable pain in the anus, and the fissure bled after such exercise. Graphites I have successfully employed, when aside from the fissure, the anus was studded with little cracks. Petroleum I found indicated for herpes around or near the anus or perineum, or furuncles at the verge of the rectum. Mercurius in its different forms will hold its place in connection with syphilis.

In conclusion, I am compelled to confess, that sometimes the best selection of remedies, and the most faithful trial with high or low potencies, will fail to accomplish a cure; and we are at a loss what to do. We must then apparently either abandon the

case, or resort to the knife. But before doing either, I would advise a resort to the following plan, by which I have been several times agreeably surprised. Examine the patient once more with all possible care, and select from our antipsorics the remedy that will cover the most symptoms, and give this remedy in a high attenuation. Or, if the patient has been a victim of syphilis, and such remedies as Mercury, Nitric acid, &c., have been faithfully tried in vain, give him or her a single dose of highly attenuated Syphilinum, and wait for the result during at least a few weeks. Pursuing this course, I have frequently observed that the general health of the patient will improve, although the fissure may remain unchanged. (In one case Syphilinum alone cured the fissure.) Now wash the ulcer well with diluted carbolic acid, and paint it afterwards with the muriated tincture of iron. This course is to be repeated once a day, until improvement becomes apparent, when it should gradually be done less and less frequently. In one case, that of a highly anæmic lady, I gave in addition to this treatment, Ferrum muriaticum, 3d dec., internally, five or six drops three times a day, and succeeded admirably.

I herewith refer to all that is recorded on this subject in homœopathic literature, outside of the standard works of our school.

A valuable treatise may be found in the North American Journal of Homœopathy, i, 79.

Reported cures with Ignatia and Graphites, and references made to Nitric acid, Platina, and Plumbum: Annual Record of Homœopathic Literature, i, 216.

Hamamelis, Petroleum, Silicia: Annual Record of Homœopathic Literature, ii, 123.

Hepar, Nitric acid, Rhus tox.: Annual Record of Homœopathic Literature, iii, 153.

Pæonia: American Journal of Homœopathic Materia Medica, Clinical Part, iii, 40; Allgemeine Homœopathische Zeitung, 77, 95.

Ratanhia, internally and externally: American Observer, x, 255.

Hamamelis: Medical Investigator, vii, 581.

Operation: Annual Record of Homœopathic Literature, i, 343.

Dilatation: Medical Investigator, viii, 439.

The Gynæcological Journal, vol. iii, p. 171, has also an interesting article.

I lastly refer to Allingham's Treatise on Diseases of the Rectum.

SECTION IV.

REPORT

OF THE

BUREAU OF OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

R. LUDLAM, M.D., ... Chicago, Ill.
J. H. WOODBURY, M.D., ... Boston, Mass.
T. G. COMSTOCK, M.D., ... St. Louis, Mo.
O. B. GAUSE, M.D., ... Philadelphia.
J. J. YOULIN, M.D., ... Jersey City, N. J.
J. C. SANDERS, M.D., ... Cleveland, O.

TO THE

TWENTY-SIXTH SESSION

OF THE

American Institute of Homœopathy.

VOLUME I. NUMBER 7.

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XXXIII.

LEUCORRHŒA IN ITS RELATION TO MENSTRUATION.

By O. B. Gause, M.D., Philadelphia, Pa.

Leucorrhœa of the female sexual organs is about as multiform in its manifestation and as widespread as dyspepsia, and like dyspepsia it is associated, as cause or effect, with nearly every other bodily infirmity to which the female is liable. So manifold are its aspects and complications that the bureau deemed it advisable to assign to each member a single phase of it for examination and elucidation, in hopes thereby to group the various phenomena and, if possible, present to the Institute some practical suggestions upon this confessedly obscure subject.

In so far as we are capable, we shall endeavor, in this paper, to confine ourselves as closely as possible to the subject assigned us without trenching upon other phases of this affection.

Menstruation is a manifestation of healthy life action. Leucorrhœa is a manifestation of morbid life action. The one is physiological, the other pathological.

Physiology is recognized as the science of healthy life. Pathology is not less a science than physiology, the science of morbid life, and as all science is based upon laws, it becomes us to recognize that in the development of the phenomena which we call disease there is somewhere a law governing this development. If medicines act curatively in obedience to "the law of similars," not less does the agent which destroys health produce its effects in obedience to a law of life action.

It has been concisely said that all life action, whether healthy

or morbid, manifests itself in three ways,—as formative, nutritive, and functional.

Every deviation from normal health "presupposes some change in nutrition or formation, and therefore we consider the alteration of a function in a manner which we term disease as secondary; or at least we presume that where some exciting cause produces an apparently immediate alteration of function, this alteration cannot generally take place otherwise than by a simultaneous one in nutrition or formation, or both."*

Derangements of nutrition must necessarily consist of an excess or deficiency, and result in hypertrophy and increased functional action, or in atrophy, or a change in the quality of the tissue of an organ or part of an organ.

We propose to keep these principles in mind and apply them to the elucidation of the phenomena of menstrual leucorrhœa.

Our first inquiry is, what is menstruation? To define it as a monthly sanguineous flow or flux from the female genital organs is, for the medical man, a very inadequate and unsuggestive definition, because the sanguineous flux is merely an effect, a secondary idea; it is in fact only the result of a most important physiological function, which function should appear as the primary thought in the definition.

We, therefore, propose to define menstruation as the physical and external or sensible *sign* of ovulation, consisting of a monthly sanguineous flow or flux from the genital organs of the female.

It is manifest, therefore, that our subject takes us back to the consideration of ovulation, and how it becomes the cause of menstruation.

Our second inquiry is, what is leucorrhœa?

The definition of our text-books is that of the lexicon, embracing the etymology of the term, a white flow, arbitrarily ascribing the flow to the female genital organs. This, too, is inadequate and unsuggestive; it fails to give any correct conception of the case.

We take the liberty to define leucorrhœa to be an excessive

* J. M. Klob, Pathological Anatomy of the Female Sexual Organs, p. viii. Introduction.

non-sanguineous discharge from the genital organs of the female, which is to be regarded as an *evidence* of a pathological condition of some department of the reproductive system.

Such *condition* may be either the primary or the secondary cause of the discharge. If primary, we regard the affection as local; if secondary, as constitutional.

The agencies by which a primary condition may be established are too numerous and familiar to need cataloguing. The point of invasion must be within the genital sphere, and may in general be determined by a consideration of the agency involved and the condition of the patient at the time of exposure.

The agency by which a secondary pathological condition is established finds the sphere of its primary effects outside the reproductive system, and exerts its influence here by reason of a general impairment of the health.

In "taking a case," we deem it of the first importance to the homœopathist that he should keep in mind these primary and essential conditions.

We return now to a further consideration of our first inquiry, viz., menstruation. As heretofore stated, the primary fact is that of ovulation. We must therefore note all the phenomena which are the immediate result of the evolution of a Graafian vesicle. When a Graafian vesicle approaches maturity there arises a somewhat sudden afflux of nutritive blood to that particular vesicle, producing thereby an excess of nutrition, and an hypertrophy, accompanied by a deeper redness and a notable congestion of the vascular apparatus of the ovary; the significant fact is the *extension* of this hyperæmia throughout the entire generative organs. I quote from the remarkably graphic description of M. Coste.

The Fallopian tube itself shares in the congestion, being often of a violet-red color, especially at its fimbriated extremity, which has a sort of velvety appearance.

The uterus undergoes such important changes that *before the discovery of spontaneous ovulation* it was *erroneously* supposed to play the principal part in the phenomena of menstruation.

Whilst the ovarian vesicle is undergoing its rapid evolution, the vascular apparatus of the womb becomes developed and injected in an unusual manner: immediately beneath the delicate

layer of epithelium which covers the surface of the mucous membrane, it forms in particular elegant reticulations, with irregular, lozenge-shaped intervals, surrounding the orifice of each of the numerous glandular tubes of which this membrane is almost entirely composed. This network is so fine as to give a violet hue of greater or less intensity to the internal surface of the womb, and is formed of very delicate venous ramuscles.

The utricular glands increase perceptibly in size, and the muscular structure of the uterus, in consequence of the congestion which it undergoes, acquires greater extension, is of a more lively red color, and becomes more spongy and supple. The entire volume of the organ is increased, the neck is tumefied, and its orifice narrower; the lips of the os tincæ are warmer and their color deeper. The mucous membrane, in consequence of this development of its vessels, and *especially* of the glandules of which it is composed, has its thickness so much increased in proportion to the size of the uterine cavity, as to be thrown, in a great many subjects, into soft, projecting folds or circumvolutions, which are so pressed together as to leave no vacant space in the cavity of the organ.

This great vascularity of the mucous membrane, and the high vascular congestion which the entire organ undergoes, is at first accompanied with the exudation of a few drops of blood, which by admixture below with the vaginal mucus, *which is itself at this period increased* both in quantity and fluidity, communicates to it at first a rosy, and then a light-reddish hue. After two or three days, a flow of blood, derived principally from the superficial network of the mucous membrane, escapes through the neck and mingles with the vaginal secretions. Henceforth, the effusion presents all the characters of a true hemorrhage.

The flow preserves the same characters during two or three, be they more or less, days of its duration; then, as the quantity of blood diminishes, it resumes gradually the mucous and serous characters peculiar to the vaginal secretion.

It does seem to me, that every one who reads this beautiful description must regard the sanguineous discharge as an effect,—merely the signs of an ovarian evolution, the maturation of an unfecundated ovule.

We note a most remarkable hyperæmia beginning in the ovaria, and extending to the entire genital system, producing by a more than ordinary supply of nutrition an hypertrophy in every department of the system—enlarging the muscular structure of the uterus, giving increased vascularity, and endowing with a new and wonderful vitality the glandular apparatus by which it enters upon the work of *preparation* for gestation; this preparation goes on but a brief season, for the lack of an essential condition for its completion, which condition is fecundation; hence the glandular work ceases, and there is nothing left to be done but the emptying of the engorged vessels and the subsidence of the hypertrophy, which process has been not inaptly termed menstrual involution. When this has been accomplished, the reproductive organs rest until another period of ovulation returns. It is during this process of formative life action that some agency may interpose to interfere with the prompt and complete involution of the uterus, in which case the engorgement and hypertrophy is not *entirely* relieved; so that after the sanguineous discharge ceases, there follows a non-sanguineous discharge, which is in excess of the normal mucosities of the internal surfaces of the uterus and vagina.

This discharge is what we denominate menstrual leucorrhœa. The initial step once taken, if not promptly corrected, each return of the physiological evolution increases the pathological impression, for the law of nutritive and formative life action in both cases tend toward the same end. The periodic hyperæmia gives us an excess of nutrition, while there is the constantly recurring imperfect involution, which is a quantitative deficiency in formative action. The consequences of a continuance of this state I cannot follow to their ultimate sequence without covering other phases of the subject than that assigned me. I may barely indicate some of them.

The same cause and for the same reason may occasion a form of leucorrhœa which shall be anticipative of the menstrual flow, and occur only at this particular time.

If the menstrual involution should be incomplete, there will remain venous engorgement in the muscular substance of the organ, and a turgescence of the utricular glands of the uterus,

and follicles of the vagina. This engorgement and turgescency result from an impeded venous reflux; hence we have the condition spoken of by Rokitansky and Klob, as increased and prolonged menstrual hyperæmia. They say that "at times we meet with considerable hyperæmic intumescence of the uterus, especially of its mucous membrane, sometimes greatly exceeding the menstrual process."

Klob says various consequences may follow as primary results of this hyperæmia, among which a "hypersecretion of the mucous membrane of the uterus is induced, the secretion becomes thicker and more viscid; so-called Nabothian vesicles are developed, hemorrhage may follow, and finally inflammation." "Hyperæmia either affects the whole uterus uniformly, or is confined to one or other portion of it, frequently the vaginal portion and cervix. The uterus, after passive hyperæmia has existed for a considerable length of time, becomes of a spongy intumescence, and owing to the permanent dilatation of its bloodvessels bleeds easily."

As a result of a protraction of this hyperæmic condition, we may have a disappearance of the active and the development of a chronic form, in which the "enlargement of the bloodvessels may continue, causing succulence of the tissue of the uterus and blennorrhœa of its mucous membrane."

The foregoing gives in our opinion the true pathology of the leucorrhœa as connected with menstruation, defective nutrition, life action developed into a morbid functional action, producing a hypersecretion of the secretory apparatus of the female sexual organs.

From the foregoing we will find that very many cases of leucorrhœa connected with menstruation have a remote origin in disturbances of the general health, as dyspepsia, heart disease, lung affections, hepatic and renal disorders, and various nervous troubles. In other cases a direct disorder of the menstrual functions is caused by cold or imprudent exposure. If not controlled, this form may ultimately lead to menorrhagia, metrorrhagia, or amenorrhœa.

In each case there will be found the same pathological fact,

abnormal nutritive action, whatever the cause which instigated the morbific change.

In the treatment of this form of female disorder, it becomes us to trace the case to the point of origin, and so direct the medical and hygienic treatment as to reach every department of the system involved, and not confine ourselves to the one thought of the local discharge. If we note ever so minutely the "characteristics" of the discharge, the aggravations and sensations, and select our remedies thereby, without any distinct idea of the pathology of the disease, our treatment will be little more scientific than his, who orders astringent topical applications with a view of closing up the mouths of the engorged vessels which pour out their contents.

One of the most essential features of the treatment of this plague of the sex is hygienic. The exhibition of medicine alone will too often result in failure, to the great disgust of the patient and discredit of the physician.

XXXIV.

LEUCORRHŒA (ENDOCERVICITIS) AS A CONSERVATOR.

By J. C. Sanders, M.D., Cleveland, O.

It is a question not unworthy of the consideration of the Institute, whether the common arraignment and condemnation of cervical leucorrhœa is not an injustice to the truth as it is to pathology, and to the facts of a rational experience.

It is my conviction that non-specific leucorrhœa, or endocervicitis, as it is more politely designated, is more often and more generally than not a blessing in the disguise of evil, a conservator under the mask of disease. This conviction is based on the following facts:

1. The limited area and simplicity of the structures involved in the malady.

The cervical canal has only an average length of one inch and a half, and a calibre of not more than three lines in diameter; and though the mucous membrane lining it, and which is the special seat of the disease, as its technical name implies, is cast into a large number of rugæ, and its area is extended by reflection into the follicles thickly imbedding it, yet in its greatest possible expansion it is an insignificant surface of membrane. Its distinctive structure from other mucous tissues consists essentially in its rugous coat and large supply of follicles, and a dentoid shape of epithelial cell; yet its structure is not complicated, nor is it highly vitalized either by a large supply of bloodvessels or nerve endowments, nor is it vitally related to other organs, not even the uterus itself, since it can be and has been removed by

excision, the cautery, and disease even, without serious or destructive results.

2. The simplicity of the functions directly implicated in the malady.

The office of the endocervical mucous membrane is not well defined, and yet is probably expressed by the value of its secretion as a means of occlusion of the canal when the canal is not required as a channel of transit, a menstruum of intermixture, and to give increased fluidity to the catamenia, and a medium of transit to the spermatozoon after successful copulation, and less prominently a means of expansion and lubrication in labor,—offices delicately important, yet not absolutely essential, when in a normal state, to the integrity of any other function, or to the general wellbeing, or to life.

How, then, can diseases so benign as irritation and inflammation, self-limiting in their nature when confined to structures so simple and limited, and affecting functions not absolutely essential to wellbeing or life, be entitled to the importance and rank which have been assigned to endocervicitis in our modern nosology?

3. The extensive prevalence of the disease.

While it is true that anterior to menstrual life its occurrence is extremely rare, if it ever occurs, no period surely of puberic age is exempt, and no condition of life can claim an absolute immunity. This, in view of the simplicity of the structures and functions directly involved, and of the protection from injury and violence secured to these structures and functions, especially in the unmarried, is a fact which bears with great weight on the question under discussion.

4. Its relation to such a multitude of causes, local and general, corporeal and mental.

Take any modern work on gynæcology or monogram on this subject, even the discussions thus far before the Institute, and it will be noticed that the most distinctive idea is this one of relation to multifarious and dissimilar causes, causes springing from morbid conditions of every vital organ, and every sphere of being. That this malady, so simple in itself and in the structures it directly affects, should have such a scope of relations to structures and

functions on whose integrity, safety, wellbeing, and life depend, gives interest and force to the question involved.

5. Its intractableness and disposition to relapse.

Treatment in all the schools, in various degrees, suffers the same disappoinments and is confronted by somewhat kindred drawbacks and reverses. Take, for instance, the experience of the so-called specialists, learned or unlearned, who arraign this malady before the people as the sum of all evils. As long as they keep up their assault by way of cauterizations, and the use of astringents, and thus maintain a state of greater irritation, or state of constringency along the tract of the cervical canal, they keep the surfaces involved in a condition of suppression or restrained secretion, and thereby inspire faith and flatter the credulity of their victims, who thankfully remunerate by pecuniary recompense and the heralding of a sounding name.

But how transient their fame. The leucorrhœa returns, or if not, the ovaries one or both, or the uterus alone, or all conjoined, become suddenly or gradually tender and painful, or burdened as with a load, or some other and remote and more vital organ betrays distress and disease.

But even under the best course of treatment, persistence and relapse characterize the malady. Professor Ludlam, with all his learning and experience, is obliged to confess that "relapses are the rule and not the exception."

Now this persistency and disposition to relapse on the part of a disease *per se* so simple, when affecting structures and functions so apparently insignificant, should challenge our careful consideration.

6. Evil consequences of its sudden interruption, either spontaneously or by "cure" so-called, and conversely the salutary results of its sudden supervention or resumption.

What man of large observation in this department of medicine, cannot recall a multitude of cases, either in his own or others' experience, where evil swift and terrible has fallen on one vessel or another, and one function or another, in form of distress, disease, and peril. And again, who of enlarged experience has not often observed with what suddenness and completeness relief and cure of acute and violent irritations, and engorgements, and

inflammations of the utero-ovaric centre, and of other and remote viscera, have followed on the supervention or resumption of a profuse leucorrhœal loss.

These indisputable facts warrant, in my judgment, the following propositions.

1. Cervical leucorrhœa or endocervicitis is exceptionably a disease *per se*.

2. As a disease *per se* it is self-limiting, and has no special significance either pathologically or therapeutically.

3. Predominantly it is a symptom, and a symptom only, as a dropsy is a symptom.

4. Predominantly it is woman's conservator, a pathological necessity, so to speak,—securing to her a relatively safe, easy and ready channel of diversion and expenditure of a large number of her suddenly induced, intensely wrought, and threatfully raging excitations, irritations, engorgements, and phlegmosias, one or more, whether affecting the utero-ovaric, or digestive, or rectal, or portal, or cardiac, or pulmonary, or the cerebral, or whether limited only to the emotional sphere.

5. It will continue a reproach to our pathological research, and a humiliation to our therapeutics, until the great fact and great scope of its conservations are fully recognized and acknowledged.

XXXV.

A CASE OF DYSTOCIA FOLLOWED BY PUERPERAL MANIA,

CURED BY HYOSCYAMUS.

By Wallace McGeorge, M.D., Woodbury, N. J.

On Monday, May 5th, 1873, at 6 A.M., I was called to attend Mrs. I. W., who was in labor. At 6.30 A.M., I made an examination, and found the womb so high up that no satisfactory results could be obtained. She was in the first stage of labor, and had been since 1 A.M. The pains were gone, and the woman in good spirits. At 9 A.M. and 1 P.M., her condition was about the same; at 4 P.M. and 10 P.M., there was some slight advance, but little prospect of an early delivery. The pains had been fair all day. I went home and retired.

Tuesday, May 6th. Was called at 5.30 A.M. Upon examination found the womb still very high up and dilating. At 11 A.M., the membranes began to bulge; at 2 P.M., the "water broke," and after that there was a standstill for half an hour. At 5.30 P.M., the head had advanced apparently as far as it could, and had become impacted; the pains being very fine and all that could be desired. At 6 P.M., there being no advancement, I determined to apply the forceps and deliver the child. After nearly an hour's unsuccessful effort I gave up the attempt.

It may be interesting just here to state some of the obstacles which impeded my progress. In the first place the woman was short, very fleshy, and compactly built; she was twenty-four years old, and was in labor for the first time, having been

married ten months previously. Her weight at the last time she was weighed was 273 pounds. The vulva was nicely dilated and had been from the first; the soft parts were moist, but there was an immense amount of adipose tissue between the rectum, perineum and vagina to be overcome. So tight was the vaginal passage, that it was with difficulty the blade of the forceps could pass it, and the second blade could not be introduced without causing her pain. The pains continuing good, I waited another hour, and then tried the forceps again, and was again unsuccessful. At 10 P.M., I asked for a consultation, and sent for Dr. Jacob Iszard, of Glassboro, some ten miles distant. He arrived at 1.45 A.M (Wednesday), and at 2 P.M., after a full consultation, we decided that the child must be delivered artificially and at once. At my request, Dr. Iszard attempted to apply the forceps, but the same thing that troubled me perplexed him. The woman learning that the child must be delivered by forceps or in pieces, said she would bear a little pain if we could get them on. Encouraged by this statement Dr. Iszard tried the forceps again, and with my assistance, after some little delay, succeeded in getting them on and locked. Traction was made by him for a few pains, and afterwards by the writer. After considerable effort, in which I used my utmost strength, the head was delivered from the superior strait, and pressure relaxed upon the forceps. In two or three pains (Dr. Iszard supporting the perineum), the child's head was born, and the instrument removed. In another pain the body followed, and we had the satisfaction of delivering the child alive to the anxious friends of the woman.

The child was born at 3 A.M., Wednesday, May 7th, and was a large one, the head unusually so, measuring seventeen inches in circumference. Its head was considerably tumefied and lacerated in some places, but the child was strong and lively immediately after delivery. The secundines were removed with very little trouble, followed immediately by considerable hemorrhage, which ceased in two or three minutes. The patient was in good condition, considering her labor was of fifty hours' duration, except that she was very sore from bearing down so long. Her pulse ran up rapidly before she was delivered, being nearly

150, but there was no flooding after the first discharge, when the placenta was removed.

The woman rested soon after 4 o'clock, and at 9 A.M., when I called again, she seemed quite cheerful and in good spirits, complaining only of being very sore; pulse 140. Gave Aconite 6th, in water, every hour.

At 9 P.M., is very sore, and complains of a burning sensation in perineum; pulse 120; has passed no urine since the child was born; seems clear in head and doing well with the exception of urinary difficulty. Gave Belladonna 200th, in water, every half hour until she urinated, then every hour ordered hot cloths applied to hypogastric region. For the child's head I continued my prescription of the morning, a lotion of five drops of the tincture of Arnica to a pint of water, to be applied all over the head, and Arnica 200th, every hour internally. The child seems lively, and draws at the breast, but its head is very sore.

May 8th. The woman passed urine in less than an hour after taking the Belladonna. She has to strain considerably before she can pass any, a condition which troubled her all day; the lochial discharge is about right. Pulse 110.

May 9th. Mrs. W. had a restless night; from drinking so much water, diarrhœa set in, and copious discharges, sometimes involuntary, ensued; complained of considerable burning in bowels; still has trouble in urinating. Gave Arsenicum 200th, every hour, and ordered her to drink gum-arabic water instead of cold water. Child moaned a great deal; gave it Belladonna 200th.

May 10th. Mother better; diarrhœa checked, passed more water; slept some during the night; less burning and less soreness; pulse 100; mind clear. Continued the Arsenicum. Child seemed very quiet and pale-looking; had passed masses of greenish lumps through the night; face greenish in some places; head very purple where contusions were; child strains considerably before stool, none afterward. Gave it Mercurius 200th. In ninety minutes after I saw the child it died, passing away quietly without a struggle. The mother worried some, but bore up nobly under her misfortune.

May 11th. Mother seemed better, but weak; wanted to keep still; headache worse when she moved about; urinary troubles better; lochia natural, but no appearance of any milk in breasts. Gave Bryonia 200th.

May 12th. No unfavorable change.

May 13th. Found a young lady in the room when I called, which was contrary to my orders, but as the patient begged so hard for me to let her stay, I consented. She complained of soreness all over, but was otherwise no worse. Gave Arnica 200th. After I left her, her visitor began to talk to her about various subjects, religion, her baby, &c., and talked too long, getting her excited. That night, when I was sent for to see her, I found her in a maniacal condition.

She would jump and shout and scream, and act violently, all the time saying she was "happy, and had got religion; she was so happy she had got religion," &c., and repeat over and over again the same subject; urine scanty and difficulty in urinating; wants to get up and run away. Gave Stramonium 200th, every hour.

Next day not much change; not so wild, but continual conversation carried on. Continued the Stramonium. In the evening seeing no change, and learning that she always woke up worse, gave her Lachesis 200th. No change ensued, and in thirty-six hours more I gave her Sulphur 200th. This remedy was prescribed because she was so happy. "God was so good to her," she said; "He was sending such blessings down upon her; He had taken away her baby so she should not worship it, but worship Him. He was so good to her she must praise Him; she must shout, she must sing, she must clap her hands for joy. Oh! I am so happy," she cried; "God loves me so: He has done great things for me."

This remedy was continued for three days, during which time the happy frame of mind continued. Sometimes she would tell me she had been in hell, but did not stay long there, and that she was in heaven now. Then she fancied she had the power of healing simply by touching any one afflicted; then she had power to convert all to Christ, and multitudes would fall down, as in the days of Pentecost, when she preached, &c. These statements

made to me are repeated here to show how her mind wandered during the time referred to.

Finding no change, and from her continual talking, and from the fact that had been observed all day long of her always waking up from sleep worse, and going right off into a frenzy, I prescribed Lachesis 200th again. In twenty-four hours her mind wandered more to animal subjects, and in forty-eight hours she became almost entirely sensual. She wanted all to go out and leave her alone with her husband; she insisted that he must sleep with her. Then she would think awhile and be affected apparently with shame, and break out, "I am a modest and decent woman; I am a modest and decent woman. I never slept with a man before; I never slept with a man before," at the same time throwing her head back, clapping her hands, and beating time with her feet on the floor. Then she would insist upon being dressed in her bridal dress (I found her so fourteen days after confinement) and all her finery; an hour afterward she bit herself on her arm, and endeavored to tear her dress to pieces; she tore her underclothing in shreds, and had to be held in bed by force; she struck at her husband and mother, and did not know them. Again she tore herself loose and ran into another room and locked herself in, stripped herself naked, and stood at the window in that condition for fifteen minutes, talking and singing and gesticulating. Again another idea would seize her. "Doctor, I have had twelve children, and if it had not been for me, Jim (her husband) would have had twenty-three." When I remonstrated with her, and told her her child was in heaven, she would reply: "No; they laid it out in the parlor, and buried it on Sunday. There is one of my children crying now in the parlor; don't you hear it?" At this time, May 22d, Hyoscyamus 200th was prescribed.

No change was observed that day, except that she rested better at night.

May 23d. Has been quieter all day; not so noisy. At 4 P.M., and for half an hour, she was very noisy, and as bad as ever; after that time she became quiet again, and slept well.

May 24th. Talks rationally at times; mind wanders; wants to look over her baby's clothes. Continued the Hyoscyamus.

May 25th. Took a carriage ride, and felt better afterward. May 26th. I saw her, and she was quite calm. Said she was better. "I am all right now." In answer to my inquiry, when she commenced to improve, she said, "Yesterday, after her drive, but to-day she was more like herself. She wanted to do something for her husband now, he had been so kind to her." She wanted her relatives to go home, and get a good sleep; she would not need them to watch her any more. Continued the Hyoscyamus 200th.

May 30th. Saw her again, and found her apparently well, but noticed she talked considerably. She remembered all she had done, and was sorry for the trouble she had caused. Her mother met me at the door and said she was entirely sane and rational in every way. She had improved very fast since Monday. She was quiet, and needed no one to watch her, and slept well at night. On the 26th, her monthly sickness came on in the same way it always did, with vomiting, diarrhœa and headache, and then she felt better. The patient informed me that the laceration of the perineum was healing up nicely, and was not half so long as when first noticed. Ordered Calendula to be applied to it, and left her Hyoscyamus 200th, one powder to be taken dry on the tongue each day. I discharged her, with the request that she would call at my office once a week for some time, so that I could ascertain the condition of the lacerated perineum.

This was twenty-three days after parturition, seventeen days after the mania first appeared, and eight days after I gave her the first dose of Hyoscyamus. It was the first case of puerperal mania I ever saw, and I hope it will be the last. Of many cases of insanity coming under my notice or professional treatment, this was by all means the worst, and yet one of the speediest cures it has been my good fortune to witness.

XXXVI.

A CASE OF PROLAPSUS UTERI WITH ADHESIONS.

By Mercy B. Jackson, M.D., Boston, Mass.

Miss H., an unmarried woman, of fair skin, dark hair and eyes, tall, a dressmaker, had run a sewing machine, and had been unable to work for a year and a half. She came under my care September 29th, 1868.

At that time she could not straighten herself up, on account of a pulling from the uterus, and when walking she dragged her feet, or placed them very carefully to avoid a jar, and took hold of anything within her reach to aid her. She had constant pain in the small of the back, burning and throbbing in the back, and some pain in the abdomen. When sitting she could not put her feet down, because "it pulled so," as she said.

She had a great deal of headache, with dizziness, and pain extending from the nape of the neck to the vertex; heaviness of the head; congestion; vertigo, with flushed face. She had been attended by one allopathic and two homœopathic physicians during the year and a half previous to her coming under my care, with little relief, and constant aggravation of the disease. She had frequent neuralgic pains in the cardiac region, which alarmed her very much. Lachesis 30th was always effectual during the subsequent treatment in relieving her in a very short time of these pains.

September 30th. Examined digitally; found the hymen intact, the opening small, and the membrane so thick, that dilata-

tion was necessary before a thorough examination could be made. I introduced a sponge-tent, and as soon as the opening was sufficiently enlarged, made a further examination. Found the pelvis deep, the uterus down in a mass in the hollow of the sacrum, and attached by the mucous surfaces, and so soft and jelly-like, that I feared my finger would penetrate it while making the examination.

In the first part of her sickness the catamenia lasted too long, but was now delayed, although still lasting too long. She had profuse watery leucorrhœa, yellowish and offensive. I introduced a sponge moistened with a solution of Castile soap as thick as it would run, pushed it up between the uterus and pelvis, as far as the adhesions would permit, removing it daily and replacing it with a fresh one. Gave Sepia 30th. The sponge had been used five days when the menses appeared, with more pain than usual, and lasted a fortnight.

During the time the detachment was going on, she suffered much, and was confined to her bed with inflammation of the womb, with fever, great heat and tenderness in the iliac region, and pulse ranging from 100 to 110. This state continued for ten days before the inflammation was entirely subdued and the uterus detached. Great relief was found from Nux vomica 30th, during the fever.

As soon as the inflammation had subsided, I gave her Sepia 30th, night and morning, a few pellets at each dose.

October 12th. She had neuralgic pains about the heart. Gave Lachesis 30th, with immediate relief.

October 16th. The uterus is regaining its place slowly, but the tone is not so much improved as I could wish. Gave Helonias dioica, which improved its tone, but with little change in its position.

Gave Sepia 30th, as before until December 31st, with steady improvement.

The menses delayed nearly a month, but when they appeared there was less suffering, and they lasted only six days. Continued Sepia to January 22d, at which time I found that the uterus had returned to nearly its normal tone and position, and she was able to walk out on pleasant days.

I gave her Helonias dioica, and occasionally Sepia, until March 30th, when she returned home, travelling sixty miles in the cars. In the June following, she came to visit friends in Boston, and fell down a flight of stairs, causing prolapsus. She returned home without treatment, and grew worse until, in September, she came to Boston, and under my care was restored to tolerable health, the uterus regaining normal tone and position. She was still weak in the abdomen, preventing long walks or much exercise. I advised lifting on Mann's Reactionary Lift, which she carried out for five or six months, with complete restoration to health, thus enabling her to take the long journey to Colorado, and to establish her business of dressmaking there.

The exercise on this health-lift has been found extremely beneficial in cases where uterine diseases of long standing have been cured by medicine, and yet the patient remains weak, and unable to labor much, or take long walks without great exhaustion. It furnishes the needed stimulus to the debilitated muscles of the abdomen, thereby preventing a lingering convalescence.

The difficulty of restoring these muscles to their normal tone, after long uterine disease, has been one of the greatest obstacles to perfect recovery, in the worst cases under my observation.

I would suggest a trial of the health-lift in such cases, and a report of its effects, in order to add to our means of restoring a large class of invalids to vigorous health, in a much shorter period than could otherwise be done.

XXXVII.

INVERSION OF THE UTERUS.

By Mary Safford Blake, M D., Boston, Mass.

Veit makes three stages of inversio uteri.

1st. The depression of the organ, but where it remains still above the os.

2d. Complete inversion where it remains in the vagina.

3d. Where the vaginal walls are drawn down and the organ lies outside of the vulva.

A relaxed condition of the muscular walls of the uterus invariably precedes this abnormal condition, and hence its frequency following pregnancy, and its occasional occurrence in connection with uterine polypi and tumors.

In the majority of cases reported, where inversion of the uterus has followed delivery, the placenta was adherent, and force was used in its removal, or the cord may have been too short, and child, placenta and womb may have been expelled in close succession.

An indentation was thus formed in the uterine wall, creating a partial and then complete inversion.

Where tumors and polypi have their attachment at the frontal portion or upper segment of the uterus, they may, by their weight and continual dragging position, gradually produce a corresponding result. In a former number of the Medical and Surgical Transactions I find a case of partial and spontaneous inversion recorded: woman, aged 25; primipara; funis presented in advance of the head; forceps were applied; child stillborn; no

traction on cord; placenta naturally expelled in a few minutes; uterus contracted well; funis of usual length.

Patient was comfortable until the third day, when a cathartic was given, and at stool a sensation as of something giving way was felt in the vagina. An examination proved it to be the uterus inverted.

Attempts to replace it were futile. A sanguineous and serous discharge continued for nine months, when unsuccessful attempts at restoration were again made. Soon after the patient died from exhaustion.

In the American Journal of Medicine an interesting case is reported, in which spontaneous inversion occurred at the fourth month of utero-gestation following an abortion; it was the eighth pregnancy; each had followed the other in rapid succession.

In Bedford a rare case is cited of spontaneous inversion and reinversion. Labor was in every way natural, but forty-eight hours after there were premonitory symptoms of peritonitis, and upon examination a complete inversion was found; all attempts at restoration were unsuccessful; the patient suffered from a sanguineous purulent discharge. At the end of seven months, upon examination, no tumor could be found. Several years after, when she died of cholera, a post-mortem revealed the uterus in a normal position and condition.

A most interesting case of congenital inversion, unreduced, was reported to the French Academy of Medicine some years since.

The uterus was inverted in the patient, a virgin, so that the fundus was below, and formed a tumor on the right side of the vagina, while its neck was above, and out of reach of the finger. The patient menstruated regularly.

Lisfranc relates a case of complete inversion unsuspected during life. She led an active life, was regular in her menstrual functions, had no vaginal discharge, no pelvic pains, nor dragging-down sensation in the region of the uterus. She died in the hospital from an attack of acute bronchitis.

Lee gives a case of inversion remaining twenty-five years undetected. She had suffered occasionally during that time from

uterine hemorrhage, and consulted him for that trouble. Upon examination, the fundal portion of the uterus was found protruding from and below the os. She then recalled severe suffering upon the removal of the placenta at the birth of her only child, twenty-five years before, which was followed by flooding and fainting. Since then she had felt no further inconvenience, save the occasional hemorrhage. Dr. Lee proposed removal of the organ by ligature. As the climacteric period was approaching, it was thought best to delay it a few months; in the meantime her flowing ceased, and her general health was so good that the idea of an operation was abandoned.

The usual symptoms accompanying inversion of the uterus are hemorrhage, syncope, vomiting, trembling of the limbs, and shaking all over the body, as with a severe chill; there may be insensibility and convulsions.

When the os closes rapidly and firmly about the inverted portion, gangrene follows, and may be communicated to a portion of the small intestines that has been drawn down with the fundus. The broad ligaments and ovaries may also share in this displacement, pressure, and usual fatal consequences.

When we consider the many cases that have been incorrectly diagnosed, even in the hands of experienced practitioners, we are warned of the necessity of exercising great care in our examinations. When a foreign body is discovered in the vagina the first point to be clearly ascertained is, where is the uterus and what is its position.

Unless there be present ascites, abdominal or uterine tumors, or a great superabundance of adipose, this can be readily done by a thorough bimanual examination per rectum as well as per vaginam if necessary. If no trace of the organ be found within the pelvic cavity, it is safe to conclude that it is it that we have to deal with in the vagina.

The length of time that the inversion has existed, the age and physical state of the person, will greatly modify the condition that the organ will present to the touch and sight, and upon these before-mentioned conditions depend the chances of a difficult or easy reinversion.

The usual methods resorted to for restoring the organ to posi-

tion are taxis and vaginal pressure, or a combination of the two. Where these have failed, amputation has been resorted to, either by means of the knife, galvano-caustic, the ligature, or écraseur. Charles West gives forty-five instances in which the uterus was removed; of thirty-three ligated, ten died; by the écraseur, five, three recovered; preceded by ligature and removed by knife or écraseur, nine; six recovered. Of these cases operated upon, several were made supposing the uterus to be a polypus. Dr. Thomas, of New York, is the first and only one, I think, who has restored an inverted uterus by means of an abdominal incision, as in ovariotomy. He introduced a steel dilator, like one used in stricture of the rectum, into the constricted cervix; as it yielded he pressed the fundus up with a hand introduced into the vagina, following Dr. Emmet's method of manipulation, that of drawing the uterus down to the vulva, and then pushing it rapidly up; he succeeded, after an hour's effort, in restoring it to place. The abdominal wound was closed by sutures, and the patient made a speedy recovery. An operation that puts life in greater jeopardy than amputation even of the organ, will not be often tried; only as a last resort could it be advised.

While in Breslau, Germany, one of the physicians whose clinics I attended, gave me a case of inversion of fifteen years' standing to treat. She was a hard-working woman, aged 50. Fifteen years before was delivered of a child, and ever since had suffered from a dragging and weighty sensation in the hypogastric region; menses had been irregular, at times hemorrhage. These had ceased for two years previous to the time I began to treat her. She complained now mostly of pains in the sacral region, with a weakness and trembling of the legs, which made the performance of her duties as house servant almost impossible.

Upon examination, I found the uterus lying completely external to the os, an atrophied, hard, knotty body. I could circumscribe a margin of cervix possibly one-quarter of an inch in depth.

Tampons of cotton saturated in glycerin were used for some days within the vagina, then rubber balls were inserted for some days filled with water as warm as could be borne. When the membranes were softened, cold applications were used; Ergot was

given, the mother tincture, from time to time; reposition was tried, the patient kept a reclining position most of the time, and the third week my efforts were crowned by a complete restoration of the organ.

In connection with an instrument I have to show, for reinversion of the uterus, I here refer to a case I have had recently, and which is reported in the May number of the *New England Medical Gazette.*

XXXVIII.

A CASE OF ENCEPHALOCELE.

By William K. Williams, M.D.

On February 28th, 1873, at 11 P.M., I was called to see Mrs. C., æt. 28 years, American, of medium build. I found her in labor, and having pretty severe pains. Made an examination and found the labor progressing nicely, there being a natural presentation, but the head seemed to be impacted against the pubes. I waited until a pain had passed, and then continuing the examination, found a mass lying in the hollow of sacrum, of which my first impression was that it was the placenta; but absence of hemorrhage and other considerations soon relieved my mind of that fear. I endeavored to push this mass back, so as to release the head, but was unsuccessful in the attempt. I then desisted from all efforts for a time, and then renewed the examination, pushing it still further, until I found that the mass lying in the hollow of the sacrum protruded from the occipital suture of the fœtus. From this I at once suspected a cephalic tumor of some form or other. In view of this condition of things I did not leave my patient, but as labor progressed, worked the tumor gradually from the hollow of the sacrum, keeping pressure from it as much as possible, and allowing it to come down slowly, telling my patient at the same time not to use too much bearing down effort. With two more pains she was delivered. At birth the child was somewhat asphyxiated, owing to the unnatural length of the cord, which was twice around the pedicle of the tumor, and twice around the neck of the child, and could not be removed before birth. I used the necessary means for restoring

the child and with success, after which it began nursing naturally and so continued.

March 3d. Called Professor O. B. Gause and Dr. Wright in consultation, to consider the utility of an operation. We decided that surgical interference, owing to the unusual dimension of the tumor and the quantity of brain-matter, would be useless.

The tumor increased rapidly in size until March 15th. I then introduced a trocar, and drew from the tumor two gills of fluid, which was found to contain albumen, serum and blood. The tumor rapidly refilled, and on March 23d, I drew off three gills more, after which the child became comatose. It, however, recovered from the shock, and lived until March 30th, passing away in spasms.

The dimensions of the tumor at birth were as follows: pedicle, five and a half inches in circumference; body of tumor, thirteen inches in circumference. At death the pedicle had not increased, but the tumor had increased three inches in circumference.

A post-mortem examination revealed that the tumor contained a large quantity of brain-tissue, together with a quantity of serum, thus proving it to be an encephalocele, a rare congenital deformity, most of the subjects of which are either stillborn or die soon after birth. In the cases collected by Lawrence, only six reached adult age; Adams met with an instance at twenty, and Guignot, one at thirty-three years.

Surgical procedure in such cases affords but little prospect of relief, and experience is decidedly in favor of non-interference. There are, however, methods proposed, such as ligation, excision, and compression, conjoined with puncture. In one case only, so far as I have learned, was the protruding portion of the brain sliced off successfully.

SECTION IV.

REPORT

OF THE

SUB-BUREAU OF GYNÆCOLOGICAL SURGERY.

S. R. BECKWITH, M.D., ... Cincinnati.
C. ORMES, M.D., ... Jamestown, N. Y.
G. W. RICHARDS, M.D., ... Orange, N. J.
S. S. LUNGREN, M.D., ... Toledo, O.
WILLIS DANFORTH, M.D., ... Chicago, Ill.

TO THE

TWENTY-SIXTH SESSION

OF THE

American Institute of Homœopathy.

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XL. Clinical Cases, ... C. Ormes, M.D.

XXXIX.

CERVICAL ENDOMETRITIS.

By S. R. Beckwith, M.D., Cincinnati, O.

Although but a few years have elapsed since the diseases that belong especially to women have attracted the especial attention of the profession, much has been done in those years to acquaint physicians with the pathology and treatment of this class of disorders. At present, the curriculum of college education is not considered complete without a chair of gynæcology.

Many new works have been published recently, devoting their entire pages to this subject, and there seems to be a universal determination, on the part of physicians, to familiarize themselves with this heretofore neglected branch of surgery. Our own department of the profession is not behind others in aiding the advancement of women's interest. Our worthy chairman, Dr. Ludlam, has, since we last met, produced a work on the Diseases of Women, of more than six hundred pages, which compares favorably with any kindred book published. The members of the Institute and profession generally owe the author a debt of gratitude for furnishing them with so valuable a work.

Before commencing a description of the disease mentioned in the title of this paper, we wish to call the attention of members of the Institute to the frequent speculum examinations made by some physicians for any and every complaint, without due regard to the delicacy of the examination. So frequent, and I might say popular have physical examinations become, that it would almost seem that a morbid curiosity had taken possession of such physicians as are constantly recommending

the use of the speculum; and we are not surprised that Bouling advised the profession to let women carry their wombs, the same as they do their bustles, all by themselves; and we hope the members of this Institute will condemn the frequent and unnecessary use of the speculum, as well as severe local applications.

Cervical Endometritis is a term applied to indicate the existence of a chronic inflammation of the mucous membrane, from the os internum through the os externum and over the vaginal portion of the cervix uteri. Other terms, such as Cervicitis, Cervical Catarrh and Cervical Leucorrhœa, are used to express the same meaning.

The anatomical seat of the disease, at its commencement, is the mucous membrane of the cervix and the vaginal portion of the cervix uteri; or even the whole neck and inferior portion of the womb may become implicated.

There is one peculiarity in the anatomy of the cervix worthy of mention, which will help to explain the pathology of the disease.

On the antero-posterior walls of the cervix are ridges from which folds are given off that run upwards and outwards, which arrangement of the mucous membrane has received the name of arbor vitæ. Between these folds are found a large number of mucous glands, known as the "glands of Naboth." The secretions of the glands are alkaline, those of the vagina acid; the cervical mucous membrane is covered over with epithelium, studded by villi, that are easily removed by inflammation.

The clinical pathology of the disease is especially interesting to the physician. Post-mortem pathology reveals only the advanced states and the disintegrating effects of the disease; and to the pathologist these lessons are instructive, as by them he will learn the termination of the affection, and be enabled to form an opinion of the degree of destruction that may go on until death. "But the early disturbance of the economy can only be observed on the living," and, to the surgeon, these changes are more important in aiding him in forming a correct opinion of a disease than any visible effect exhibited after death, such as the mechanical condition of the fluids, ulcerations, den-

sity of tissue, chronic deposits that post-mortems alone reveal, which are too often considered of more importance than the vital functions of the nerve influence, or of the subtle effects of mind over body; and if this was not frequently true, many diseases, now so poorly understood, would be better comprehended by physicians.

The appearance of the womb, as shown by physical examinations, is variable; the os is puffy and enlarged, and opened or roughened with granular degenerations. In other cases it is hypertrophied, smooth, and of a bright-red color, nearly closed. Again, it bleeds easily when touched, and is very sensitive. Escaping from the cervix is a tough, glairy, mucous discharge, resembling the white of an egg, which is secreted by the mucous follicles of the neck. If the disease is confined to the upper portion of the cervical mucous membrane, the os presents nearly a normal appearance, and it would be impossible to diagnose the disease, were it not a fact that the albuminoid leucorrhœa is always secreted by the "glands of Naboth."

If the discharge be albumino-purulent, it arises from the mucous membrane of the cervix and vaginal portion of the cervix uteri, after the epithelium has been partially denuded. If the disease has existed for a long time, the leucorrhœa is muco-purulent, showing that the mucous follicles and epithelium have been destroyed. The discharge, in such cases, is very copious, and the disease difficult to cure.

The sound, in some instances, can be easily introduced, and with little pain; in others, the smallest-sized instrument will only pass partially through the cervical canal, in consequence of the mechanical closure, or from the neck being bent upon itself. If the latter condition exists, the womb is enlarged upon one side, and gravitates usually towards the rectum, and would be easily mistaken for simple retroflexion. The whole neck of the uterus is frequently changed from its healthy condition; the inflammation of its mucous membrane extends to the remainder of the cervix, producing hypertrophy, and other abnormalities. The mucous membrane of the vagina becomes thickened and sensitive to the touch, occasionally causing vaginitis, and frequently it is very difficult to introduce the speculum.

The causes of this affection are constitutional or local. Among the former the most frequent are feebleness of constitution, want of exercise, and scrofula. Among the latter are displacements of the uterus, excessive venery, abortion, efforts to prevent conception, use of intra-uterine pessaries, &c.

This disease may exist for a long time without producing sufficiently urgent symptoms to require medical assistance. Leucorrhœa almost always exists, yet, in a few cases, the discharge is so slight as to be barely noticeable, while in others it is profuse and exhausts the patient. Among the most prominent symptoms, and one that accompanies nearly every case, is pain, weight, and heaviness in the back and loins, with a bearing-down, dragging sensation of the pelvis. Menstruation is altered, being too frequent, or too protracted, with increase or decrease of flow; the menstrual discharge is dark and coagulated when profuse, or thin and watery when scanty. After the disease has lasted for a considerable time, dysmenorrhœa occurs in almost every case.

There is a peculiarity of this disease rarely found in any other local chronic inflammation, and that is, constitutional disturbance and perversion of the mind. The appetite will diminish, nutrition becomes impaired, so as to exhibit an impoverished condition of the blood, accompanied with paleness, loss of muscular power, and want of capacity to endure exercise; also nausea, vomiting, severe pain on top and front of the head. In many instances the debility is so great, that the patient is not able to leave her room or bed, as in a case we have at present under treatment, where the patient has not been able to walk but a few steps at any one time for fifteen years.

The mental symptoms are well-marked; she becomes nervous, irritable, moody, and often hysterical. I do not believe there is another affection known, where such a peculiar train of symptoms accompanies it. The persons affected are irascible or melancholy without cause; grieved or petulant from the least disturbance, and often unable to control their impulsive anger. The mild and amiable woman is so changed in her disposition, that her friends and acquaintances notice the change. The home and domestic relations are often made unhappy by the conduct of the

unfortunate invalid, in doing those things which she cannot avoid, although she knows them to be wrong.

And here we would beg your attention to this class of symptoms, and impress upon you the importance of explaining the strange conduct of your patient, to those most interested in her welfare.

We will now mention a class of symptoms that more especially belong to this disease than to any other, viz., reflex irritation. These symptoms are among the most important connected with the affection, and often serious mistakes are made in diagnosis, from a want of knowledge on the part of the physician in not fully understanding the extent and nature of the case.

Reflex irritation is produced (as we believe) by long and continued pressure upon the peripheral extremities of the nerves, causing an abnormal condition in their centric connection, rendering the parts supplied by them easily excited. The indurated cervix produces pressure on the nerves supplying the neck; in consequence, in some instances, the stomach, digestion and nutrition are impaired; in other cases the nerves of the head and face suffer, as will be seen by a report of the following case.

Mrs. —— had suffered for several years with severe facial neuralgia. She had consulted different eminent surgeons, and not alone taken their treatment, but had used all the applications that were recommended. I had given her most of our remedies that were indicated, once of every dilution. At last she consented to the removal of Meckel's ganglion. At this time, her suffering was more intense than I had ever before witnessed. During the paroxysms it required two strong attendants to keep her in bed. During one of her severest attacks the pain suddenly left the face and went to the womb. This led me to make a speculum examination, and the cervix uteri was found hypertrophied, with inflammation of its mucous membrane; the cervix was at once divided and the neuralgia ceased.

Hysterical and other forms of mania are sometimes produced by endometritis, and I am of the opinion that many an unfortunate lunatic could have been cured, or her insanity prevented by proper treatment for this affection. I have recently cured a patient that had been insane for two months, by introducing

sponge-tents into the cervical canal, that was nearly closed, and giving internally Calcarea carb., Pulsatilla, and a few other remedies. This patient had partial paralysis of both hands, and was unable to feed herself. She has steadily improved since the treatment was commenced, and is now nearly well.

I am sorry that any of our number takes exception to local treatment in some forms of surgical disease, on the ground that it is not homœopathic. The opposition to local applications has been productive of great harm in preventing the advancement of our practice.

Homœopathic surgeons have had to contend against a prevailing opinion of the public, that they, as homœopaths, had no right to use local treatment, and many sufferers have been deprived of the benefit of specific medicine, because they believed that internal remedies were necessary for a cure.

In the treatment of chronic cervical endometritis, I think, in many cases, it will be found that, unless the treatment be local as well as constitutional, no cure will be accomplished; yet I do not wish to be understood as recommending local applications in general in this affection. Constitutional treatment is of much more importance, and we, as homœopathic physicians, possess remedies that exert a specific and curative influence, and when administered according to their indications, will do more towards promoting a cure than any other treatment known.

I will not trespass upon your time by recitations of hygienic treatment, but only remark that in the treatment of this disease more than of most others, the greatest care should be exercised in removing the cause, and in compelling the patient to observe the strictest hygienic regimen.

On account of the varied pathological conditions of the uterus in this disease, it will be impossible to give any statement as to what local applications should be used in every case. We have found, whenever the uterus was congested, that relief would follow the application of cotton saturated with glycerin, so applied as to completely cover the neck of the womb. It should be repeated daily, until the congestion is removed. Soon after the glycerin is applied, a serous discharge will occur from the overloaded capillaries, and the parts will appear as if bleached. Fre-

quently but few applications are required before the lightened uterus will return to its normal condition. You will be disappointed in the treatment unless the womb be throughly packed so as to exclude air.

Tinct. Hydrastis mixed with equal parts of glycerin, and applied two or three times a week, when there is purulent leucorrhœa, or when the womb is found in the vagina, will often arrest the discharge; and if the upper portion of the vagina is plugged as above, pushing the womb to its place, in a month or two it will be found there will be no tendency to prolapsus.

In granulary degenerations we use a watery solution of sulphate of copper, applied with glycerin. When the neck is hypertrophied, as is often the case, and the cervix uteri is too large to be received into a glass speculum, we apply iodine mixed with two parts of glycerin.

If the cervix is abraded, an occasional light covering of nitrate of silver will prevent ulceration and cause a restoration of the mucous membrane. As auxiliaries to the treatment, benefit will be derived from frequent irrigation of the cervix with warm water or some mucilaginous application. Cleansing the cervix with cotton wound around a piece of whalebone, and observing the utmost cleanliness to prevent irritation from the discharge, facilitates the cure.

Sponge or sea-tangle tents introduced into the cervix in cases of dysmenorrhœa, or where the cervical canal is constricted, will be of use if not allowed to remain more than three or four hours at any one time.

Every physician knows there is an occasional case that is not relieved by medical treatment, and when occurring in consequence of hypertrophy of the cervix or destruction of the "glands of Naboth," a free division of the cervix will often be found necessary. The plan of operation recommended by Dr. Sims is the one we have followed.

We will now conclude this paper by mentioning a few of the remedies and their indications that we have found most useful in curing this affection. We have seen the best effects when high potencies were administered.

Alumina.—When the menses are too short, and if painful, the

pain occurring before the discharge is established, color pale. Leucorrhœa albuminous and corrosive, worse during the day and from exercise. Pain in sacrum; pains as of bruises in small of back. Nausea, with feeling of faintness, and nausea when standing, and when there is reflex irritation, causing neuralgia of face; drawing pain in the face and cheeks, occurring more frequently in the after part of the day. Especially indicated when there is a dulness of head with loss of memory.

Causticum.—Menses too profuse and too early; inability to retain the urine, or frequent emissions of urine. Leucorrhœa yellowish, worse at night. Tearing pain in small of back with stiffness of muscles. Adapted to scrofulous and weakly constitutions and those who are melancholic.

Calcarea carb.—Menses too frequent, accompanied with dysmenorrhœa. Leucorrhœa worse before menses, muco-purulent, producing heat and itching of the parts. Weight and heaviness of the pelvic organs. Patient easily disturbed, ill-humored, cries easily. Scrofulous diathesis; specially indicated in constipation and burning sensation in passing urine.

Kreasotum.—Leucorrhœa yellowish-white, occurring in patients where there is great debility, with loss of appetite, and feeling of fulness of stomach. Spasmodic pain in abdomen with distension; pain and tenderness of left ovary.

Mercurius sol.—Has no especial relation to the menses, but will relieve endometritis accompanied with purulent leucorrhœa, worse in latter part of the day; also when there is hypertrophy of the cervix with subacute inflammation. Headache with vertigo, and pressure from within outwards.

Pulsatilla.—Menses suppressed or delayed, accompanied with pain like labor pains, and with a desire to vomit. Menses dark or coagulated; the pains precede the flow, or continue during the first day of menstruation. Leucorrhœa, mucous or muco-albuminous, with heaviness in hips; bearing down of the womb; pains in left iliac region; cramps of the limbs. Hysterical, feverish, and melancholy. Another symptom that will be relieved by Pulsatilla is, pain and heat in top of the head, worse on motion and when in the open air.

Sepia.—Flushes of heat in head and face. Menses yellowish,

watery. Leucorrhœa; stitching pains in womb; weight and heaviness in abdomen; sensation of prolapsus. Throbbing pains in frontal part of head.

Other remedies, such as Caulophyllum, Belladonna, Helonin, Lilium tig., &c., are appropriate.

In conclusion, we wish to urge the necessity of having observed, on the part of the patient, proper diet, gentle exercise, and the necessity of care for several months while under treatment, as this disease cannot be cured in a short time. The leucorrhœa may be arrested, and the returns appear nearly normal; yet there will be a return of the symptoms if any imprudence be committed.

XL.

CLINICAL CASES.

By Cornelius Ormes, M.D., Jamestown, N. Y.

OVARIAN TUMOR.

Mrs. P., æt. 49; of nervo-sanguine temperament; ceased to menstruate when forty-five years old; nothing abnormal in condition or circumstance attended the menopause. General health usually good; of medium size, with not a large development of cellular or muscular tissue, yet capable of great physical endurance. Had congenital, perhaps hereditary, ichthyosis, which is as manifest now as during childhood.

Three years after the menses ceased, she noticed an enlargement in the left side, which gradually extended over the whole abdomen, and presented an unequal surface. She continued to enlarge, until, in January, 1873, she was tapped by her attending physician, the operation being repeated within three weeks, about fifty pounds of albuminous fluid having been drawn off at both tappings.

I first saw her in April, and she was at that time very large. After a careful examination, I diagnosed a tumor, partly solid and partly cystic. Upon tapping her, forty-eight pounds of fluid, of a pea-green color and albuminous, were drawn off. At this time there was manifest a hard tumor, extending upwards from the pelvis into the left side. Examination per vaginam disclosed that the uterus was inordinately high and immovable.

Her distress from the encroachments of the tumor, &c., be-

coming almost too great for endurance, she concluded that any operation which would end her suffering in any way would be preferable to a longer existence with such suffering. Accordingly, on the 29th of May, after having fully informed her as to the chances of the operation, I, in the presence of several neighboring physicians, proceeded to remove the abnormal growth. The abdomen was laid open by the usual incision, and several cysts were evacuated, which contained a watery and thicker fluid. The tumor was found, as had been diagnosed, to be made up of cysts and solid matter; the latter material being cerebriform, while the several cysts were filled, some with a curdy or cheesy substance, and others with jelly-like material.

The tumor was attached, almost throughout its entire circumference, to the peritoneum, omentum, abdominal walls, and uterus. These attachments were in some places very firm, requiring considerable force to break them up. After breaking up, by careful manipulations, all adhesions, the pedicle was at length reached. It was secured by iron-wire ligature, excised, and left in the abdomen. But little hemorrhage attended the operation; one torn vessel of the omentum requiring a ligature, while all others were secured by torsion. The abdominal cavity was carefully cleansed, and the wound was united with interrupted sutures, adhesive straps, and a bandage. The solid tumor, cysts, and contents, weighed sixty-five pounds.

The woman being in a very weak and emaciated condition, and having suffered for a long time from loss of appetite and want of proper assimilation of food, died from exhaustion on the fifth day after the operation.

OVARIAN ABSCESS.

Mrs. K., a large and fleshy woman, pregnant for the first time. The first month of pregnancy passed without any unusual symptoms. Ten days previous to her confinement I learned the following history: She had been running a sewing-machine daily for the past two years, till within a month of the time when I first saw her, leaving off only at such times as when her sufferings became so great that she could not work. At about

the sixth month of pregnancy she began to have severe pains in the left iliac region, followed by chills and throbbing, pulsating sensations, with great soreness and tenderness to pressure in the region where the pains were located. About four weeks after this attack she discharged about a pint of very offensive pus per vaginam; and in ten days thereafter a second discharge of about a gill of the same fetid matter. There was no further discharge of pus after this, but the pain and soreness continued. In the early part of the ninth month she began to bloat somewhat, and general anasarca supervened, with great abdominal tenderness and dyspnœa, chills in the afternoon, fever in the evening, loss of appetite, and great restlessness. When I first saw her her pulse was 140, lips exsanguinated, and covered with a white, slimy saliva, which also lined the mouth and fauces. The face and lips were swollen; the extremities and general surface had a peculiar cadaverous appearance.

My first impression was that these symptoms were the effects of arsenic; but on investigating the case and getting the history, I diagnosed blood poisoning from absorption of pus,—or, in other words, septicæmia. My prognosis was unfavorable; and, in fact, I scarcely expected her to give birth to her child.

In ten days after my first visit labor set in; the os dilated nicely, but there were no pains sufficient to cause the fœtus to engage in the superior strait. This condition continued for twenty-four hours or more, when I introduced my hand, detected a breech presentation, secured the feet, and after protracted and difficult manipulation succeeded in delivering the child, without the aid of any efficient uterine contractions. The placenta was adherent, and was removed by the hand. The uterus did not contract, but remained large, the fundus extending above the umbilicus; and yet there was no hemorrhage. The patient remained very quiet for twenty-four hours, when the pains in the left side returned, with chills, hectic flush, extreme sensitiveness of the abdomen, and distension of the bowels. There was no lochial discharge, the urine was suppressed, and she became delirious. She lingered in this condition until the seventh day, when death relieved her of what art had failed to do.

Autopsy twelve hours after death. The left ovary was entirely

obliterated. About a gallon of offensive pea-green-colored pus was found in the abdomen, and there was evidence of extensive peritoneal and intestinal inflammation. There was also the remains of a cyst or sac floating in the pus, partly in a decomposed state, and adhering to the left side of the uterine wall. The uterus was about ten inches long, and on its left side more than an inch and a half thick. It cut like softened cartilage. The opposite side of the uterus was about three-fourths of an inch thick, and had a corrugated appearance, as though it had partially contracted, or would have done so had the left segment permitted it.

SECTION V.

REPORT

OF THE

BUREAU OF SURGERY.

BUSHROD W. JAMES, M.D., ... Philadelphia.
N. SCHNEIDER, M.D., ... Cleveland, O.
WILLIAM TOD HELMUTH, M.D., ... New York.
E. C. FRANKLIN, M.D., ... St. Louis, Mo.
J. J. DETWILER, M.D., ... Easton, Pa.
M. W. WALLENS, M.D., ... Somerville, N. J.
JAMES B. BELL, M.D., ... Augusta, Me.
H. F. BIGGAR, M.D., ... Cleveland, O.
J. H. McCLELLAND, M.D., ... Pittsburg, Pa.

TO THE

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LX.	Therapeutics of Bone Diseases,	J. C. Morgan, M.D.

LIV.

RACHITIS.

By N. Schneider, M.D., Cleveland, O.

The study of the osseous system in its development and growth, and in its various diseases, is interesting and highly profitable. There is no part of the human body more highly organized, more liberally endowed with vitality than the bones. There are no pathological conditions more varied than those relating to them. They are endowed with nutritive power and formative force, by which they maintain their integrity in health and resist the approach of disease.

Before we can intelligently investigate any pathological conditions to which the osseous system is subject we must understand well the anatomy of bone.

Bone is composed of two kinds of tissue, the compact, which forms the external surface, and the cancellated, which forms the internal portion. Chemically, bone is composed of organic or animal matter, and inorganic or earthy matter. These combine in the proportion of one-third organic to two-thirds inorganic, thus rendering the bone firm and solid, but at the same time elastic. Any deviation from this proportion in the combination of the animal and earthy matter materially affects the solidity of the bone.

The study of the minute structure of bone reveals to us a system of canals, which are hollowed out of the compact tissue, their diameter being about one two-thousandths of an inch. These canals run in a direction parallel with the bone, and are

intersected by others running from the surface to the medullary canal. Both are lined with periosteum and transmit capillaries to all parts of the bone, and open up a free anastomosis between the periosteum and the medullary membrane. Surrounding these canals are developed the lamellæ, in concentric rings, and in the lamellæ may be seen minute cavities, the lacunæ, likewise arranged in circles around the canals. In healthy bone each of these lacunæ contains a minute nucleated cell.

Thus we see that the bone is everywhere provided with the centres of cell life. These cells are then brought into close proximity with the capillaries by a system of minute tubes called the canaliculi, which shoot out from the circumference of the lacunæ. The canaliculi are filled by fine processes given off from the cells. By this arrangement the minute cells are bathed in the plasma of the blood, and this plasma is so influenced that the integrity of the bone is maintained and nourished, without compromising in the least its solidity and strength.

With this hurried anatomical description of bone, we take up one of its pathological conditions, known as *rachitis*, or in common parlance as rickets.

Much has been written upon this disease by men of close observation and excellent ability; but for the most accurate description of it we are indebted to Sir William Jenner, of London, who, in a course of lectures delivered by him, describes it in a very clear manner.

Rickets is decidedly a disease of childhood, very seldom appearing after the age of puberty. It is also quite rare in this country, affording but a limited field for clinical observation. It is common in England, and is most generally found among the poorly fed and poorly clad children who reside in the damp, dark dwellings in the large cities. It depends no doubt upon a constitutional cachexia developed by insanitary conditions. This cachexia has its primary influence upon the minute cell which occupies the cell centres. Thus the blood which is supplied for the nourishment and growth of bone is not influenced by a healthy cell action.

It is claimed by some writers that this disease is brought about by an improper supply of the inorganic material in the fluid, and as

an argument they say that the urine in this disease is surcharged with inorganic material, and consequently the bone is impoverished by this elimination. The fact is, however, that the blood is surcharged with phosphates because of the non-development of the bone, and the kidneys are simply performing their proper function in carrying off the excess of any element which may be found in the blood.

If you examine the blood of a child in the first stages of rickets, you will, I think, find in most cases very little change in its composition, the material being healthy and combined in proper proportions, while its flow to the bone is unobstructed. But the bone itself you will find deficient in inorganic matter; not on account of the non-supply of the proper nutritive material, but because this material has not been sufficiently influenced by the action of healthy cell life, which life has been interfered with by a morbific force, exerting a specific influence upon the minute cell itself. Hence we find that the first anatomical changes take place in the ends of the bones, where growth is the most active, and where the blood is most abundantly supplied. Now, if this cell life which is the formative power, the nucleus of bone tissue, be interfered with or destroyed, the nutritive material cannot be converted into healthy osseous tissue. Consequently the bone itself ceases to develop; the nutritive fluid becomes changed because it is not assimilated in accordance with the law of healthy development; an irritation is produced, and nature, true to herself, sends an increased supply of blood,—the great nutritive agent,—to the part, with the intent of repairing the injury; thus the vessels become more and more distended, as in inflammation. The cartilage, from the excess of nutrition becomes abnormally developed, the periosteum becomes thickened, and frequently there is an infiltration of a fluid which is really nothing more nor less than the unassimilated plasma of the blood. These causes combining give us that deformity of the joints peculiar to this stage of the disease.

The condition above mentioned once established, we soon get farther changes. The whole bone now becomes affected. Deprived of its reparative and formative power, the chemical relation of its elements becomes altered. We now have one-third

inorganic and two-thirds organic matter. The bone becomes soft and pliable, the cancellated portion is nearly lost. Fearful distortions of the osseous framework arise. The natural curvatures of the spine become greatly exaggerated. The clavicle yields to the muscular tension, and to the movement of the arms. The head sinks between the shoulders; the pelvis becomes greatly distorted by the superimposed weight of the body; the ribs, yielding to accommodate themselves to the increased spinal curvature, together with a forward flexion of the sternum, present a condition known as chicken-breasted. The limbs yield to the muscular contraction and the superincumbent weight; the neck of the femur bends downwards, and frequently sinks below the trochanters, while the natural curvatures are greatly increased. These conditions, and the arrest of development in the inferior extremities, give to the person afflicted with rickets a most ill-shapen and dwarfish appearance. The changes in the development of the head have been closely studied by Mr. Shaw. He shows most conclusively that the law of development in the skeleton of the fœtus is in increased ratio from the inferior extremities upward; that is, that the head and upper portions of the fœtal skeleton are farther developed than the lower portions. He also shows that this ratio is reversed after birth in the healthy individual, the lower extremities developing more rapidly than the head and upper portions of the body. Hence it follows, that in the course of time the development is symmetrical throughout the entire body. In persons predisposed to rickets, this law of development is not observed. The same ratio of development which existed during fœtal life continues after birth. The head and upper portions of the body still gain upon the lower parts. The relations which existed between the face and head of the child when born are still maintained. This together with the arrested development of the extremities gives to the child the appearance of a very large head, while in reality the head is below the standard size.

This distorted condition of the bones which form the walls of the cavities, materially interferes with the various viscera which they are designed to protect. Hence in rickets we find the lungs and heart pressed upon, their functions disturbed, frequently

producing organic changes, especially when great demands are made upon them in case of disease, when the system demands an unusual amount of oxygen. The cells become very much distended and frequently give way. Air is infiltrated, and we get a condition known as emphysema, which often induces collapse of a portion if not of the whole lung.

The digestive system is greatly deranged by the spinal contortion. The liver and spleen are affected by the constant pressure from the ends of the compressed ribs, and often undergo great functional disturbances, and occasionally anatomical lesions.

Thus it is with all the viscera. Not only do these vital organs suffer from the changes in the contour of the various cavities in which they are contained, but from the impaired and altered nutritive material which sustains them in their functional powers. The brain no longer receives the stimulus of healthy nutrition, it takes upon itself disease, and we find children dying with tubercular meningitis.

The primary symptoms of this disease are undefined and obscure, and commonly not until the anatomical changes show themselves do we fully comprehend the real condition of the child.

Among the first symptoms is, profuse sweating about the hands, neck, and chest, especially when the child sleeps. Another, given by Jenner as a characteristic, is the desire of the child to throw the clothing from it and lie exposed even on cold nights, while other children seek the covering to make them comfortable. Still another, so claimed by Stieble, is the dread of being touched, no matter how gently. The child shrinks from contact, is unwilling to be moved, wants to be let alone. It soon assumes a languid expression. When attempting to sit it falls into a heap, as if the spine had not strength enough to sustain the body. The muscles become lax and soft, and the whole expression is that of a person suffering under a constitutional cachexia.

TREATMENT.—This should be constitutional and mechanical. The constitutional treatment should be resorted to as soon as any symptoms of a general dyscrasia show themselves. The remedy should be chosen according to the law of similars. We have but a small clinical experience to rely upon in treating this

disease, but a firm adherence to the great law of therapeutics will, in a majority of cases, dissipate the symptoms, and thus arrest the disease.

Among numerous remedies, we select the following as being the most frequently indicated in this disease:

Calcarea carbonica.—Perspiration at night, or at any time during sleep, especially on the head and upper part of the body; also resulting from the least exertion; the patient throws off the covering at night. These symptoms mark the earlier stage of the disease. The whole skin, particularly that of the feet, is very painful when touched. Constant weariness of the extremities; easily fatigued. Deep, drawing, lancinating pains in the extremities. Stinging, prickling, and itching of the extremities, and even over the surface of the entire body.

The early history of the child may afford indications for this remedy. Lack of growth and development of the bones. Fontanelles close very gradually. Slow and difficult dentition. Learns to walk slowly on account of weakness in the bones; the child is excessively fat. When these symptoms and conditions are present, Calcarea carb. is indicated.

Calcarea phosphorica.—Burning, itching and formication over the entire body. Deepseated pains in extremities. Languor and debility after slight exertion.

Silicia.—Great irritability and painful sensitiveness of the skin under touch. Stinging and biting over the entire surface of the body. Severe bone pains shooting from one point to another. Weakness of limbs, especially when first moving after rest. Stitches in legs at night. In infants the fontanelles close slowly; the child does not walk early, the result of muscular weakness rather than of deformity of the bones. Perspiration from slight exertion; more profuse on head and face. Symptoms worse at night.

Asafœtida.—Trembling, with cold skin and small, feeble pulse. Relaxed and heavy feeling in limbs. Great lassitude during movement. Symptoms worse at night. Disease due to antenatal syphilitic influence.

Kali carbonicum.—Limbs painful in those parts on which he is resting. Sensitiveness over the whole body. Drawing pains

in parts affected. Extremities frequently go to sleep. Weakness and weariness of the extremities; uneasy, restless feeling in same. Sudden stitches in legs.

Phosphoric Acid.—Limbs go to sleep at night. Bruised sensation over the whole body. Great languor after walking. Severe aching pains in limbs like growing pains; worse at night. Rachitis occurring in children who have grown too rapidly.

The *mechanical treatment*, which consists in applying artificial support, should be given as soon as the bones become soft so that they can no longer resist the action of the muscles and the weight of the body. It should be continued until the disease is removed by the indicated remedy, or has expended its force. Nature, relieved from this morbific agent, gives vitality to the minute cells, repairs the ravages of disease, and finally the integrity of the bone is completely restored.

PROGNOSIS.—This depends upon the treatment. If the disease has been neglected, or treated without judgment and skill, the prognosis is unfavorable. Although some escape with their lives, in such an event, none recover without more or less deformity, and live only to fall victims to some other malady, such as scarlet fever, measles, &c. But by skilful treatment and judicious diet much can be done, and the patient frequently entirely recovers.

LV.

TUMORS OF BONE, BENIGN AND MALIGNANT.

By E. C. Franklin, M.D., St. Louis, Mo.

The bones, possessing the same general organization, and endowed by the same general principles that underlie the soft structures, are also liable to similar diseases, both of a benign and malignant character. The structure and physical properties of bone, especially with reference to its *inorganic* material, which imparts to it strength and solidity so as to subserve the process of locomotion, exert, as is well known, a modifying influence not only in the frequency of bone diseases, but also upon their progress, the character of their products, and the mode of their termination. The differences also which exist in the amount of this inorganic material at various periods of life, influence the character of the disease; as for instance, in the child, where the *animal* matter preponderates, it is not unusual that the bones, after injury, become bent, or only partially broken, from the large proportion of flexible organic matter which they contain; while in aged persons, where the earthy matter preponderates, the bones are more brittle and their elasticity is destroyed, giving rise more frequently to fracture of their structure. When a disproportion exists between their two constituents, from constitutional impediment or other cause, the production of diseases dependent upon such abnormality is the inevitable result. Thus rachitis, so common in the children of scrofulous parents, is produced; the bones being bent and curved, either from the superincumbent weight of the body, or under the action of the muscles of the part; also, the ossification of tissues, which takes place

in certain peculiarities of constitution, is due to an irregularity of the system depositing calcareous cells in the cellular tissues. (It has been asserted that Rayer produced ossification of tendons at will in animals by introducing pins into them.)

It may be observed as a rule that the osseous system is indisposed to inflammation; but when the morbid process is once fairly lighted up, severe constitutional trouble is almost certain to ensue, terminating in serious structural disorder, often followed by the worst consequences; but when, on the contrary, the inflammation is chronic, or the local perversion is dependent upon some dyscrasia of the system, there follows a less active and less serious condition of bony disease. In the latter category may be classed the various exostoses and heterologous formations, some of which are identically similar to their own structure, while others are essentially different in most particulars, as they partake of the nature either of *benign* or *malignant* tumors.

It is the province of the present paper to discuss that division of this subject which comprises a description of the various new formations or tumors found in the osseous system, such as *exostoses, fibro-cartilaginous growths, aneurisms, hæmatoid formations, serous cysts, hydatids, myeloid tumors,* which are termed the benign tumors; and the *encephaloid, colloid, scirrhous,* and *melanosis,* which are denominated the malignant tumors.

1. Exostosis.—The term exostosis, which signifies a bone growing from a bone, is merely a local hypertrophy, or circumscribed tumor, possessing the same structure as the bone from which it originates, and with whose substance it is closely allied. A great deal of confusion has existed among surgical writers in the use of this term, which has been ascribed to almost every variety of tumor, both benign and malignant, growing from bone; but I shall limit the expression to those innocent tumors, or circumscribed outgrowths, formed exclusively of bone, and not the result of inflammatory action. This deformity is chiefly seen in young and middle-aged persons; or to speak more concisely, between the period of puberty and the fiftieth year. It is more common in males than in females, and is more frequently seen in the bones of the cranium, the femurs, and the phalanges of the great toe. As a rule it evinces a preference to the external sur-

face of the bones of the head and pelvis whenever it attacks these bones, perhaps for the reason that the external periosteum is more favorable for its perfect growth. Whenever they occur internally in the bones just named, they do so from injury to this structure, or as the result of syphilitic poison. These exostoses have been seen to exist in several members of the same family. A few years ago I operated on three members of one family, who were afflicted with this disease; in one case removing five of these tumors from the femur of one, two from the os frontis of another, and one from the tibia of the third, with the most gratifying success. Boyer mentions the particulars of a case where the disease was hereditary; the patient's father, sisters, brothers, nephews, and children having all suffered from a similar affection. Usually solitary, they sometimes are seen, however, in considerable numbers in the same person, and seem to be dependent upon some dyscrasia of the system, causing a peculiar exostotic diathesis. These tumors sometimes observe a singularly symmetrical arrangement, occurring at the same locations on the different sides of the body. Instances of this kind have been observed, where these tumors have appeared both on the frontal bone and lower jaw, and more commonly they have appeared on the humerus and femur of the same side. The volume of these tumors is exceedingly variable, ranging from the size of a filbert to a full-grown fœtal head; the largest have been observed upon the bones of the extremities, and especially the lower portion of the femur. Their shape is as protean as their volume. Sometimes they present a well-defined globular or ovoidal outline; at others they shoot out into long, slender, pyramidal shapes, while occasionally they take on the semblance of knobby, tuberculated, or mammilated masses, their surfaces almost always assuming a scabrous or spiculated appearance; in some cases, however, their surface is perfectly smooth and glossy.

Etiology.—The causes conducing to produce these growths are still shrouded in mystery, and in a large majority of cases no assignable reasons can be given for their appearance. Their origin has been variously attributed to injury, violence, and undue pressure, joined to a syphilitic, scrofulous, gouty, or rheumatic diathesis. Whatever may be the exciting causes of these

growths, their formation is unquestionably due to a deposit of plastic and osseous matter, developing and increasing in the same manner precisely as that which presides over the formation of the original bone. The inflammatory or formative process involves not only the bone, but partly the periosteum, and cases have occurred in which the latter tissue seems to have been chiefly involved in the development of the morbid growth. Their increase is usually gradual, continuing for years without producing any serious inconvenience; at times, however, they are extremely rapid in their growth, and attain quite a considerable magnitude in a short time. They are rarely attended with much pain, and only become a source of annoyance and trouble when they degenerate under certain conditions into a malignant condition.

Structure.—The structure of exostosis is the same as that of healthy bone, and is composed of a *compact* substance, which sometimes constitutes the greater portion of the morbid product, and forms a dense, firm covering, enveloping the tumor like a shell, and varying in thickness from the fourth of a line to a quarter of an inch, according to the size of the growth. At times this layer assumes the consistence of ivory, of a white, or yellowish-white appearance, becoming so firm and intimately blended with the tumor as to be exceedingly difficult to be removed. The *areolar* texture is at times directly continuous with that of the bone from which the tumor springs, while at others it is entirely independent of it, and is in immediate contact with the external or compact layer, or separated from it by a fibrous, cartilaginous, or fibro-cartilaginous stratum. This structure is composed of cells of variable form and size, intermixed with fatty matter, as is seen in the short bones of the body and the articular extremities of the long bones. When these growths are situated in those portions of the skeleton required for purposes of locomotion, they are provided with a smooth synovial membrane or capsule, the object of which is to resist friction and facilitate the purposes of movement. In some cases, adjoining bones are considerably interfered with, and depressions or chasms in a few instances have been completely bridged over, seriously interfering with the natural processes of the organism. In this

way, an exostosis of the orbit may, by increased development, destroy the functions of the eye; an exostosis of the pelvis materially interferes with the process of parturition; and that of the rib with the organs of respiration, of the cranium, with the functions of the brain, &c. It occasionally happens that the soft tissues overlying the tumor will become inflamed, terminating in ulceration and sometimes gangrene, and finally involving the bony structure. At other times the growth perishes from want of vital nourishment, and becoming detached from its base sloughs away, especially in those cases where the tumor has a narrow, cartilaginous base.

Diagnosis.—The diagnosis of these growths is not always readily made, except in those cases where the tumor is quite superficial, and its firmness, immobility and gradual increase clearly point out its real character. In the long bones, and especially where the overlying structures are in close proximity to their surface, its nature may not be invested in doubt; but when the tumor becomes exostotic, and juts from the interior lamina of the bone inwards, it becomes a matter of exceeding great difficulty to diagnose, and its existence may be known rather by negative than positive proof.

Prognosis.—The prognosis of this affection is rarely of a grave import, and only becomes so when important parts are interfered with—as when the functions of the brain, eye, or any of the larger joints, are encroached upon by its persistent growth; an operation in such cases is always a hazardous undertaking, and success is by no means sure to follow. A few weeks since I performed an operation for an "exostosis," projecting from the inner table of the skull (parietal bone) which resulted in neuralgia, epileptiform convulsions, partial paralysis, and an almost complete breaking up of the nervous system. It proceeded from an injury to the skull, resulting from the operation of trephining, and probably a spicula of bone partially detached from its base, and from subsequent growth and impinging upon the brain-substance, produced the symptoms above described. An operation for its removal consisted in opening into the brain at the seat of accident, and removing the offending substance. Dr. Everett, of this city, has within the

last few weeks successfully operated for a like exostosis, growing from the internal table of the frontal bone, and producing nervous disturbances similar to the symptoms above mentioned. These exostoses sometimes project from the pelvic bones, seriously interfering with the natural process of labor, and demand of the surgeon operative procedure.

Treatment.—The treatment of exostosis is arranged under two principal headings: the constitutional or medical, and the operative or radical. The first comprehends the cure of the disease by the administration of those remedies which act directly upon the tissues involved in the morbid process, or by ridding the system of the noxious principle which produces the abnormal growth. When there is good reason to suspect that these tumors are occasioned by a deranged condition of the system induced by the existence of a syphilitic, gouty, scrofulous or mercurial poison, the remedies *en rapport* to those conditions will be demanded to arrest these morbid growths and finally cause their absorption. The remedies of chief value in these cases, and upon which I have frequently relied for their complete eradication, are the following: *Asafœtida, Angustura, Aurum, Calcarea, Fluoric acid, Kali jod., Lycopodium, Mercurius, Mezereum, Nitric acid, Phosphorus, Ruta grav., Silicia, Staphysagria* and *Sulphur.* The remedy is to be selected according to the prominent indications in each case, and should be given at lengthened intervals and in the higher potencies to insure a successful issue. It will be entirely out of place in this paper to give the particular indications for each remedy. This must be left to the practitioner, who should make a careful analysis of each case, and adapt his remedies accordingly.

As auxiliary treatment, external applications of *Iodine, Mercurius,* or *Kali jod.;* smart frictions of the hand with a lotion of the indicated remedy; frequent ablutions of cold water to the part involved, or the daily use of an ointment of *Mercurius* or *Iodine* applied to the diseased part. The more recent the growth, *cæteris paribus,* the more effectual these means are likely to prove. The surgeon should not expect to witness a rapid evolution of these growths, but must bide his time with patience and be content in this disease like many others to make haste slowly.

Topical applications, especially in the early stage of the disease, are of considerable value in the treatment of these growths, and should be diligently applied from time to time, the most important of which are *Arnica*, *Calendula*, *Ruta*, *Staphysagria*, and *Symphytum*, to be employed in each case in accordance with their therapeutic indications.

By a diligent and persistent use of the foregoing applications, I have often succeeded in curing this malady, when little promise was held out in the beginning of treatment. The slow growth of these tumors, and the little derangement of adjacent structures, give ample time to the surgeon to canvass the case carefully, and apply the resources of his art medical before resorting to the *dernier ressort* of operative procedure. It would be rash, however, to say that operations are not justifiable, since these growths in the neighborhood of the orbit, the cranium, and the pelvis, may cause death, or produce a deformity in some instances even worse than death, by displacing the eyes or bones of the face, and an operation as a last resort seems to be both humane and demanded as the last refuge of the surgeon's art. In most cases, the removal of these growths is readily accomplished, their bases not being broad, nor the ossification very compact. In a few instances they have been found to be so soft as to be removed by a strong scalpel; while in others they have been united to the shaft by ligamentous union, which is exceedingly favorable to their complete removal by operation. The least favorable cases for removal are when their bases are broad and firmly ossified: but in any case when their growth interferes with the functions of important parts, or threatens deformity, in some cases even worse than death, it is the duty of the surgeon to attempt a removal. In such cases the operator must prepare himself for the difficulties and intricacies which he has to encounter, and should have at hand a sufficient supply of instruments to meet any emergency. The separation should be commenced at the side corresponding with the greatest amount of danger, and the incisions should be carried down cautiously to the base, which should be clearly exposed and carefully and thoroughly detached from the surrounding parts, which may be required to be held back by the aid of retractors. If the whole growth is not ex-

cised it may return, hence it has been advised, that if the tumor is situated where its base cannot be completely extirpated, an application of *Nitric acid* or *Potassa fusa* should be made to the portion remaining, so as to produce complete exfoliation of the bone.

The incisions through the integument should be sufficiently free to enable the surgeon to work to advantage, taking care on the other hand to avoid wounding any important structures, which might lead to the permanent impairment of the structures of the part. If the skin is implicated in the morbid process, it should be removed with the bony mass so as not to interfere with the subsequent healing process. The instruments usually required in the removal of these tumors, consist of a trephine, Hey's or chain-saw, the gouge, chisel, and bone-forceps, the raspatory, and such other instruments as may be required in case the tumor is situated in any of the cavities of the body.

In whatever manner the operation is accomplished, it must be borne in mind that the raspatory is to be employed to file away any roughness that may exist after the removal of the mass. The hemorrhage attending this operation is usually slight, and it is rare that a ligature is required, especially in the long bones after the operation. The wound should be approximated by interrupted sutures, or the use of pins, or adhesive strips, and applications of *Hypericum*, *Ruta*, or *Staphysagria* lotions, by means of pledgets moistened with the remedy, should be continually applied to the part to favor the healing process. Ordinarily union takes place kindly and without any untoward effects. When suppuration supervenes, *Calendula* dressings are to be substituted for the lotions just recommended.

2. ENCHONDROMA, OR CARTILAGINOUS TUMORS.—These tumors are incomparably more frequent in bone than in any other structure of the body, and present in the osseous system all the varieties that belong to the disease in other portions of the body. It is chiefly met with in the phalanges of the fingers and toes, in the ribs and sternum, as well as the bones of the skull, ilium and the long bones. It is a disease peculiar to the middle-aged, though its culmination may be deferred, especially in the deeper-seated parts, to a later period of life. For surgical pur-

poses these growths may be divided into two varieties, the *circumscribed* and the *diffused*. The *circumscribed* develop a tendency to ossify throughout their whole extent, while the *diffused* usually grow as extensive infiltrations into the cancellated structure of bone, and in time affect the periosteum which remains as its external covering. In many cases they remain stationary for a long time, preserving the characteristics of benign tumors throughout, while in others they slowly degenerate into a semi-malignant growth, but, unlike true cancer, they affect the adjacent parts more by pressure and absorption than by contamination. This is a distinctive feature of this growth, and characterizes it from that of carcinoma. It occurs more frequently in the periphery of bone as the circumscribed variety, and shows a strong tendency to ossify, the process usually commencing at the base. When it originates in the cancellated structure it gradually encroaches upon the external lamella, which it expands into a thin, porous shell, either wholly osseous or an admixture of bone and cartilage. In course of time the attenuated covering gives way, and permits the morbid growth to protrude beneath the periosteum, which becomes blended in the diseased mass. The shape of the tumor is globular; its surface is rough or lobulated; its appearance is white or grayish, while its structure is firm, dense and elastic. A small enchondroma is sometimes seen springing from the extremity of the last phalanx of the great toe, raising the nail from its seat and causing considerable pain and uneasiness, which is readily removed from the bone by an incision and the use of the bone-forceps.

Diagnosis.—The diagnosis of benign tumors from each other is uncertain and obscure, especially when they are connected with the deepseated bones. If, however, a benign tumor is clearly made out as springing from bone, it is most certain to be either an exostosis or an enchondroma. If it is unusually dense and unyielding, and of moderate dimensions, it may be diagnosed with tolerable certainty as an exostosis; if, on the other hand, it is large, its surface nodulated, elastic when firmly pressed, and possessing a certain amount of resilience, and of slow growth, with a bursa formed over the tumor, it is almost sure to be an enchondroma. When the superficial bones are the seat of dis-

ease, and especially the phalanges, the diagnosis is much more readily made out. As a general rule enchondroma are usually solitary, except when occurring in the bones of the hands, where they are commonly multiple.

The microscopical appearances of this growth present a considerable *diversity of structure,* unlike that which is seen in other benign formations. Its structure, when exposed, presents a glistening, bluish or whitish appearance, the intercellular substance shows a more or less fibrous character, the cells varying greatly in number, size, shape and mode of arrangement, and are sometimes so fused with the basis substance that the nuclei alone are perceptible, and are occasionally seen shrivelled, and containing oil-globules, or possessing a granular appearance. The general appearance is that of fœtal cartilage, from which it is difficult to be distinguished. During the growth of these tumors they are liable to ossification and degenerative liquefaction, with ossification taking place in one portion of the mass while the rest is still in process of growth. A honey-like or jelly-like fluid is often found in one or more parts of the tumor, producing a soft and fluctuating feel, as a result of its degeneration. When inflammation takes place in the mass, followed by ulceration and sloughing, a large suppurating and offensive cavity is left, from which death may occur from exhaustion.

Treatment.—The constitutional treatment of enchondroma, so far as my experience goes, has failed to produce any decidedly good results, and the only reliable and known method of ridding the system of this disorder is by enucleation, excision, or amputation, according to the locality and other circumstances of each particular case. They rarely recur after removal, unless the growth has degenerated into a carcinomatous condition, in which case the latter affection runs its course independently. Dr. John Pattison, of London, reports a case of enchondroma affecting one of the phalangeal bones, in which he saved the finger by enucleation, using the sulphate of zinc for this purpose. The part was ulcerated, of an unhealthy appearance, and he was obliged to use the sulphate of zinc three several times before healthy granulations were set up, when the sore healed rapidly and thoroughly, and in the course of a few months the young lady was quite well,

and so continued. I have tried the principle of enucleation in two cases, one of which was a patient in the Good Samaritan Hospital of St. Louis, Mo., and the other a private case from the rural districts of the State. In the former case I succeeded, not without much trouble, however, in saving the part, but in the latter was compelled to resort to amputation. It may not be uninteresting to state in this connection, that the last-named patient had suffered quite extensively from scrofulous degeneration of the glands of the neck, involving the free discharge of their contents with constitutional and local treatment. Dr. Moore reports a case in which a pure enchondroma gave rise to secondary deposits in the lungs, by a process analogous to embolism.

3. MYELOID TUMOR.—The existence of this tumor in bone is comparatively frequent, its favorite portions of the skeleton being the tibia, fibula, and especially the inferior maxilla. It commences usually in the cancellated structure of the bone, probably the endosteum, and extending inwards to the compact layers, which it gradually disparts, converting them into thin, cartilaginous plates, which bend and crackle under pressure like parchment. It frequently attains the size of the clenched fist or even becomes larger, encroaching seriously upon the adjacent tissues, and interfering in no inconsiderable extent with the proper exercise of their functions. The arteries supplying it become more or less enlarged, and the tumor itself is usually quite vascular; a section of it shows a yellow, or gray, glistening appearance, marked with spots of redness which do not seem to depend upon their vascularity, inlaid as it were with soft bony fibres and pervaded by little cysts, simple or compound, which are filled with different kinds of fluids, as serum, sanguinolent matter and perverted blood, separately or mingled into a heterogeneous mass. The surrounding structures do not seem to be implicated in the morbid process, though perhaps they may be largely distended and displaced. According to Virchow, they exhibit in their minute composition an intercellular substance and a cellular element. The former is made up of faint granules of albuminous and fatty composition, to which are added blood-vessels and occasionally a limited quantity of fibrous matter. The cellular element imbedded in this mass is peculiar and dis-

tinctive, and includes modified forms of *three types of cells.* The *first* type is designated as the nucleated connective tissue or spindle cell, presenting various degrees of elongation, from that of a simple oval and lanceolate form to that of the fusiform cell with long and delicately tapering extremities. They usually contain granular contents. The *second* type consists of small round and oval cells, corresponding in size and characters with the nuclei of the connective-tissue cells. The size of the round cell approaches that of blood-corpuscle, and is about the $\frac{1}{2500}$th part of an inch. The *third* type is peculiar, and appropriately gives the name of the *giant-celled sarcoma* to this particular form of sarcoma, according to Virchow's classification.

The grosser characters of this tumor are much less distinctive. As a rule these growths are most frequent in youth, and they occur singly, are very rare after middle age, grow slowly and without pain, and generally commence without any known cause, such as injury or hereditary disposition. They rarely become osseous, except in portions of their bulk, have no proneness to ulcerate or protrude, will bear considerable injury without becoming exuberant, and are not disposed to recur after *complete* removal. The true myeloid tumor is not disposed to degenerate into malignancy, nor does it ever assume any features of malignant disease, although under certain peculiarities hyeloid structures have occasionally been found mingled with the ordinary forms of medullary cancer.

The *diagnosis* from other benign tumors of bone before operation is exceedingly difficult, and especially from that of epulis, which will be hereafter described, and the principal characters of difference contrasted. A myeloid tumor is not so readily confounded with one of a fibrous character, which possesses a greater elasticity and softness than the latter. Secondary myeloid growths have occasionally been met with in the lymphatic glands and in the lungs.

Treatment.—So far as known internal treatment seems to possess little or no curative value in the disposal of these growths. The only remedy is excision or amputation; excision when the tumor involves the jaws, amputation when it is situated in the bones of the extremities.

EPULIS.—This is an affection of the bone having especial reference to the lower jaw, and in its earlier stage may be recognized as a small, fleshy-looking tubercle, which, as its name implies, projects from the gums, and resembles the tissues in which it is formed. Its point of departure begins in the socket of one of the teeth, usually one of the molars, from which it extends upwards, becoming under favorable circumstances a tumor of considerable volume. It is usually traceable to the irritation produced by a decayed tooth; rarely occurs before adult life and is equally common in both sexes. It is seen in practice as possessing a dense, firm consistence, a florid color, and a peculiar fibrous structure. Its shape is irregularly rounded, its point of attachment being much smaller than its free extremity. When first seen, it has generally the appearance of a little excrescence, attached at the side of one of the teeth, which in a short time becomes loose, and ultimately drops out. The great similarity between this morbid growth and the myeloid tumor previously spoken of, in their gross or external appearances, and yet the widely different characters that exist in their minute structure, has caused among surgeons much contrariety of opinion as to the real nature of the disease, before operation. Hence no mistake is more common, or more excusable among surgeons, than to confound the two, myeloid tumors having been frequently removed by them for epulis. The similarity of their natures is proven also by the results of treatment, for it is found that after extirpation, the so-called epulis and myeloid tumor of the jaw are equally prone to recur in each instance, and as a rule, if carefully and entirely removed neither is likely to return. As a matter of prognosis, therefore, their previous distinction does not seem to be very important, though none the less desirable when viewed with reference to our knowledge of the natural history of the two diseases.

The differential diagnosis between these growths may be briefly summed up in the following. Epulis rarely occurs other than singly, and is a growth peculiar to the middle-aged and the old. Epulis is of slow growth, is often painful, and has been attributed to the pernicious influence of decayed teeth, is often partially osseous and frequently contains spiculæ of bone in its

centre, detached from the surface of the bone. It recurs under the same circumstances as myeloid, that is, when all diseased portions have not been completely removed, though perhaps less frequently than the former. It is generaly lobulated, as is myeloid tumor in the same situation, but its structure is firmer, tougher, and more elastic, owing to its fibrous structure, than the myeloid. The internal structure of epulis in section is uniform, white, and shining, presenting the spiculæ of bone already alluded to. Myeloid on the contrary, on section, is smooth, uniform, shining, compact, with a straw-colored fluid, with blotches of dark or livid crimson, or of a pale pink or a brighter blood color mingled on the grayish-white or greenish basis. From the foregoing facts and comparisons, it is evident that it is no easy matter to distinguish between these growths before operation; and though appearances on section are sufficiently characteristic to the pathologist, they do not become available for diagnosis. In the minute structure of the two growths it is evident that they are widely dissimilar, and if it were possible for the surgeon to remove a piece, or introduce a suitable instrument within its interior, and bring away a portion of its contents, there would be little difficulty, by the aid of the microscope, in determining its nature. Fortunately, however, little damage will accrue to the patient, even though the growth be not distinctly made out, as neither is apt to return when carefully and entirely removed.

Treatment.—The only available method of treatment in epulis is excision of the entire growth, and as it usually involves the periosteum, this, with a thin layer of the subjacent bone, should be removed by the gouge-forceps, and the periosteum thoroughly scraped with the raspatory, so as to prevent the possibility of a return of the disease. In ordinary cases the whole operation may be performed from within the mouth, except the tumor be large, where it may be necessary to make an incision through the medium line of the lip, and dissect away the cheek so as to freely expose the whole mass to be removed. A tooth should be extracted on either side of the disease, and the alveolus freely divided with a small strong saw, as far down as the base of the tumor; cutting pliers with the blades at a right angle to the

handles, are then to be applied, one blade on either side of the jaw, and the whole growth, including the bone from which it springs, can be readily removed. The *base of the lower jaw* should always be permitted to remain, in order to preserve the symmetry of the part. According to Mr. Heath, the whole thickness of the jaw need not be removed, it having been ascertained that the morbid material does not involve the integrity of the lower border of the jaw. If the bone be very thick, it may be desirable, before applying the cutting forceps, to make a horizontal groove with a Hay's saw, but in most instances this will probably be found unnecessary. Hemorrhage is to be controlled by compression, or by the use of one of the various styptic lotions, and if these fail, by the application of the actual cautery. The external wound, if any, is to be approximated by the interrupted suture and adhesive strips and applications made of *Hypericum*, or *Ruta grav.*, or *Staphysagria* lotions, to insure expedition of the healing process and prevent the occurrence of inflammatory action.

4. Cystic Tumors.—There are two varieties of cystic tumors in bone, the *serous* or *mucous*, and *sanguineous* or *hæmatoid*. The serous or mucous cysts, which occur in the jaws in consequence of the irregularity of the growth or position of the teeth, are likewise met with in other portions of the skeleton, particularly in the tibia and femur; are similar in their nature to the serous cysts that occur in the soft parts, and are always developed in the areolar structure of bone, as either unilocular or multilocular.

Pathology.—The first is by far the more frequent, and in size may equal a hen's egg, or even exceed it, its shape being generally irregular, rounded, or somewhat globular. It consists essentially of a thin, delicate, polished membrane, having all the characters of the serous tissue, which is closely adherent to the bony wall of the cyst, and undergoes important changes through the various attacks of inflammation to which it is subject, as well as the changes induced by age. In consequence of these mutations it loses its former appearance, and acquires a hard, thick, tough and opaque look. The contents of the cyst are also variable and perhaps from the same causes; in one case they appear clear and limpid like spring-water, at others they are cloudy,

ropy, or glutinous, and sometimes they are seropurulent. Specimens have been obtained wherein the cavities were filled with solid matter of a curdy, albuminous, or fibrous nature; and very rarely they have been seen filled with a peculiar substance not unlike cholesterin. These growths are very similar to the hydatids which appear in various portions of the soft tissues of the body, and before operation can scarcely be distinguished from them.

They are especially considered as diseases of middle-aged life and young subjects, are seldom met with before puberty or after fifty, and are common to both sexes, their frequency in the one or the other not having as yet been correctly determined. The causes operating in the system to produce them are still involved in obscurity. When they appear in the lower jaw their origin has been ascribed to the irritation produced by decayed teeth, or to injury caused by their extraction, neither of which, however, can be said to be the real causes of their development, as the innumerable cases occurring daily of this kind abundantly testify. The cases of cystic tumors that have hitherto occurred have appeared, says a distinguished author, "to have come on spontaneously, without apparently any assignable reason whatever," their occurrence with the dental irritation being a mere coincidence. I believe when they occur in the jaws that they are produced through some latent morbific agency coexisting in the system at the time of the dental irritation, as various other specific diseases are brought into existence by impairment of constitution depending upon syphilitic or scrofulous agencies. The progress of these tumors is slow. They produce no marked disturbance of the general health, or any local disturbance, save perhaps what results from pressure of the tumor upon the adjacent structures. They are never malignant in their character, or show any tendency to engender malignancy in the surrounding tissues; when, however, such tendency does exist, it is undoubtedly due to an epigenesis of previous bad character. When the tumor has attained a certain size, whether it be multilocular or not, fluid or solid, its tendency is to impair the integrity of the bone, wherever located, and expand it into a thin shell, which may be known before perforation takes place by the sensation,

upon pressure, of a peculiar crackling or rustling noise, similar to the crushing of a broken eggshell or the crackling of tinfoil. Under this the elasticity or sometimes semifluctuation of the tumor may be felt, this fluctuation becoming more and more marked as the bony envelope expands under the centrifugal pressure of the tumor.

The *sanguineous* cysts or *hæmatoid tumors* of bone are not of common occurrence, nor is it usually an easy task to determine their pathological nature. The diagnosis of these cysts from the serous variety, especially in constitutions of like import, can only be effected by means of the trocar or exploring needle. Many of the examples reported of this disease appear to have assumed more or less of the malignant type. The most distinct description of blood-cyst in bone is that given by Mr. Travers. The tumor was situated in the clavicle, which involved the greater portion of that bone, and consisted of "an arrangement of cells or chambers, of nearly equal dimensions, filled with dark solid coagula of blood, with spicula of bone in their walls, and invested by a very stout fibrous membrane. The investing membrane was evidently the condensed periosteum, the cells were the irregularly expanded cancelli, and the calcareous particles were the débris of the bony plates and walls." This appearance Mr. Travers was induced to attribute to the expansion of the bony cancelli from blood effused into them as the result of violence. Mr. Stanley also relates a case in which he amputated the thigh successfully, on account of a blood-cyst originating in the condyles of the femur, and where both the femur and tibia presented an "ecchymose condition from minute effusions of blood through their compact tissue." Mr. Stanley denies the formation of simple cysts in any other of the bones of the body save the jaw, and attributes the other variety of cystic sanguineous tumors to a disease of malignant tendency, and therefore properly classified under the head of malignant tumors of bone, and indeed my own convictions lead me to adopt the same conclusions.

Symptoms.—The symptoms of cystic disease of bone are obscure. "The first thing," says Gross, "that usually attracts attention is a dull, aching pain, in some particular bone, as, for example, the jaw, which is often mistaken for toothache or rheu-

matism; this gradually increases in severity and frequency, and is at length found to be dependent upon the presence of a hard tumor, or the expansion of a portion of the bone, more or less tender on pressure and motion, but unattended by any discoloration or intumescence of the overlying textures. The progress of the disease is always tardy, and it often happens that, after having attained considerable development, it remains to all outward appearances for some time perfectly stationary. Then, taking a new start, it again increases, and thus it continues, now advancing and now halting, until it has acquired the volume of a large orange or even of a fist." During all this time the general health does not appear to have suffered, as is the case in malignant disease; the pain is slight and rather continuous, then appearing in paroxysms and lancinations, as in the case of some forms of malignant diseases, and seems to be due rather to the pressure of the tumor outwards than any inherent condition of the diseased mass. The parts will present under pressure an unequal consistence, the firmer portions being firm and unyielding, while the softer portions readily give way to the pressure from the fingers, and emit the peculiar crackling sound heretofore described. These symptoms, with the absence of the usual signs of malignancy, afford the best evidence of the nature of the disease, and, whenever doubt may arise, its true character can only be satisfactorily determined by the use of the exploring needle or aspirator. Between this disease and hydatids of the bony system, next to be considered, it is no easy matter to determine; nor is the diagnosis of any marked importance, as the treatment of both diseases is identical.

Treatment.—The medical treatment of this disease has not met with that brilliant success in the hands of homœopathic surgeons, that the nature of the case would seem to warrant, nevertheless much has been accomplished by our remedies in restoring to health diseased bones emanating from various causes, and with the continually progressive march that marks the progress of our system, we hope a great deal more will be accomplished in the future.

Many of the bone diseases which I have described have their origin in some impairment of system, and generally the remedies

employed to correct this constitutional dyscrasia have eventuated in great good to the *local* mischief. The remedies of chief value in the treatment of this disease, as far as the record of our practice goes, are the following: *Angustura, Asafœtida, Aurum, Aesculus jecor., Belladonna, Calcarea c., Causticum, Fluoric acid, Jodium, Kali jod., Lycopodium, Mercurius jod., Mezereum, Phosphorus, Ruta grav., Silicea, Staphysagria* and *Sulphur.*

The acute stages of all benign bone affections may be promptly overcome in most cases by *Aconite, Bell., Kali jod., Mezereum, Mercurius* and *Ruta grav.*, to be followed by the remedy specifically called for, the chief of which are, *Aurum, Causticum, Calcarea, Hepar, Iodine, Kali, Phosphorus, Silicea, Staphysagria* and *Sulphur*, the indications for which are clearly pointed out in our Materia Medica. *Aurum* is beneficial in those cystic tumors that attack the jaws, especially when dependent upon a syphilitic diathesis, and every day's practice of the surgeon clearly illustrates this fact. In scrofulous affections of the bones, where necrosis has followed in the train of other derangements of the osseous structure, much good has been effected in the hands of the writer with *Iodine, Calcarea,* and *Silicea,* three important and prominent remedies in the cure of this affection; and I boldly assert that these three remedies will accomplish more good in the successful treatment of all diseases of the bones dependent upon constitutional dyscrasiæ, than any other three remedies of the Materia Medica, so far as our present knowledge extends. *Causticum* and *Iodine* injections are of great value in the case of sinous ulcers or fistulous tracks, when the pain is of a burning, tensive character, and compresses or pledgets moistened with the one or the other of these remedies, according to their indications, have effected much good in the hands of the author.

When the disease has been of long standing, either from neglect of the patient to seek surgical aid, or where from occult causes we have not been able to make any favorable impression upon the malady, it may be necessary to resort to resection or amputation, the method selected having especial reference to the situation of the tumor and its character. When the growth is solid, the best means of getting rid of the disease is by removal of the whole mass by resection, if situated in the jaws, or by

amputation if it occupies the articular surfaces of the limbs. If the contents are fluid or semifluid, and the tumor has attained a large size, it may be treated in the same way as solid growths. But if they are small or of moderate size, and the integrity of the bone is not materially injured by their presence, the diseased portion may be cut away, or a portion of the walls removed by excision or the trephine, taking care to fill the cavity with lint wet with *Staphysagria, Calendula* or *Symphytum* lotion. In a short time granulation will begin, and the walls of the cavity will become filled up with ossific material. This plan proved effective in the hands of the author, in a patient wherein the operation of trephining the diseased portion was performed a few months ago, for a cystic tumor of the lower jaw, and which was subsequently treated by pledgets of lint wetted with *Staphysagria* lotion until the cavity was completely filled with new material.

Evacuation of the contents of these tumors by opening and counter-opening, with application of pressure to effect contraction and solidification of the bony walls, has also been productive of good results. These tumors, M. Roux says, are so rare, that he has only seen a few well-marked cases during his long career. Other surgeons, however, report frequent cases of the disease, but none seem to place much reliance upon their removal by remedies alone, however applied, and their treatment seems to be summed up entirely by operative procedure of the various methods mentioned. I desire to state in this connection that I have accomplished more decidedly good results in all chronic or subacute diseases of bone by giving the selected remedy at long intervals and in the higher range of potencies. My manner of administering the high dilutions is by dissolving the remedy in a wineglassful of water, the whole to be taken at a draught.

5. HYDATIDS.—"One of the most remarkable diseases of the bones," says Gross, "is the development of hydatids in their spongy structure, an occurrence which has now been so repeatedly observed as to entitle it to distinct notice." The first account of these bodies was presented to the profession by two German pathologists, Vanby and Vander Haar, and since then the disease has been studied with reference to the peculiar conditions surrounding them, and much light and information have

been gleaned in regard to their true pathology and history. Whenever they occur, they are developed in the spongy structures of the long and flat bones, especially in the tibia, are exceedingly slow in their development, and are liable to produce the most serious consequences. Several instances have been recorded where these growths have terminated in profuse suppuration and ultimate destruction of the knee-joint, resulting from the bursting of acephalocysts into the articular cavity. In other cases they have been known to produce severe constitutional disturbance, accompanied with intense pain and hectic fever. In size they vary from a grain of wheat to that of a walnut, are rounded or irregularly flattened in shape, inclosed in a parent-cyst of thin, whitish membrane, containing a limpid fluid of an albuminous character, in which the acephalocyst is seen to float. They occur in about the same relative frequency in either sex; in one instance they were found in a child of three years of age; and Borchard has related a case where they existed in several situations at the same time. So far as at present ascertained, these cysts contain the ordinary echinococcus, except in a solitary instance reported by Mr. Stanley, when the cysticercus telæ cellulosæ was found in one of the phalanges. These cases are so rare, however, that in the great work of Rokitansky only eight cases are reported as the whole number included in his observations up to that time, although probably many more might be discovered in a wider search among the various pathological collections of the country. According to Rokitansky, the disease appears often to be directly induced by some accidental injury. The disease runs a protracted course, and if the shaft of a long bone be the portion affected, fracture, spontaneous or accidental, will probably be the first circumstance noticed by the surgeon. The fracture is indisposed to unite in such cases, and it has occasionally happened that in an operation undertaken for the purpose of resecting the ends of the fracture, the hydatid cavity has been exposed and the globular acephalocysts discharged. In such cases amputation is the only resource, one of which is on record where the hydatids were scooped out of the cavity of the cysts, which subsequently filled up, and a complete cure was obtained. In other cases the seat of the disease has been found in the flat bones, or

in the expanded heads of the long bones, in the following ratio: three times in the parietal bone, twice in the iliac bone, twice in the humerus, once in the femur, and once in a vertebra.

Symptoms.—The symptoms of hydatic disease of the osseous structure are extremely obscure and mostly of a negative character. There is generally an absence of pain in the formative stage until such time as swelling takes place, when the pain first experienced assumes that of a dull aching character; if in the jaw, it simulates toothache; if in other parts, it partakes of a grinding rheumatic type, which gradually increases in severity with the size of the growth. The progress of the disease is slow, at one time with little apparent disturbance of the system, at another it increases with more rapidity, when all the symptoms are greatly aggravated, and by unequal advancement in this manner the bulk is augmented until it acquires the volume of an orange, or even that of a cocoanut. The surrounding tissues are now more or less sensitive to pressure and motion, but are not attended with any discoloration or intumescence of the superincumbent tissues. The general health remains good throughout the disease, and there are no indications characterizing the state of malignancy. The tumor, at first hard and unyielding, eventually assumes a soft, elastic feel, emitting upon pressure a peculiar crackling noise, similar to that of dry parchment. These symptoms are, however, common to other formations, and therefore cannot be relied upon with any certainty of diagnosis. If the tumor be deepseated, a gradual wasting of the overlying tissues takes place, and portions of the fibrous membranes are actually absorbed. During this time the functions of the surrounding parts are impaired, pain and tenderness set in, and the affected bone sometimes yields under the most trifling accident, refusing for a long time to unite or undergo consolidation. Between this and the previous disease of the bones no really distinctive signs exist, and the only positive and reliable source of information is the aspirator or exploring needle, though this is too often, unfortunately, only made available when the disease has made considerable progress, and the morbid growth has acquired such a magnitude as to be almost on the verge of bursting.

Treatment.—So far as internal medication of this disease is con-

cerned, there are no remedies, of which I have any knowledge, that exercise any really curative agency over the growth, and my treatment of it coincides so far with that of the leading surgeons of the day as to the necessity of removing the diseased mass. The means employed and their manner of use may not, however, be in strict harmony with those in general use by the profession. As soon as the diagnosis confirms the existence of hydatids in the bony system, if the disease be unilocular, I plunge a trocar into the tumor and draw off its contents, and when the cavity is emptied, an injection of *Chloride of Zinc* and strong *Hydrastis* lotion is thrown into it and retained a few minutes, when it may be permitted to flow away. This is to be repeated from time to time until a sufficient amount of inflammatory action is set up in the endosteal wall that will change the previous morbid action of the cyst, and produce granulation and a gradual filling up of the bony cavity. I have tried in two instances this treatment in the case of hydatid tumor in the soft tissues, with the most satisfactory results, and believe the practice to be equally successful in the cure of hydatids of the bony system.

If the trocar cannot be successfully applied, and the contents from their want of fluidity cannot be removed in this way, I would advise an opening to be made through the external wall of the cyst, the contents scooped out by the aid of a gouge or gouge-forceps, and the cavity filled with meshes of cotton or linen, well smeared with a *paste* made of the *Chloride of Zinc* and *Hydrastis*, as previously advised, for the purpose not only of changing the action of the secreting surface, but also of destroying all remnants of the acephalous cysts that remain after the operation. The cavity under this treatment will gradually fill up with granulations, and a cure be effected generally within a few weeks.

When the case is of an aggravated nature, involving the entire circumference of the bone, or when the hydatids open into a joint, resection or amputation of the limb affords the only hope of recovery.

Resection is the better process when the disease is limited in its extent, and milder measures cannot be successfully employed without incurring the risk of serious injury to the system by

the continual drain kept up by the disintegrating process going on within.

Amputation is necessary when from the long continuance of the disease the bone is immediately destroyed, broken, or unwilling to unite, or when constitutional disturbance is so great as to threaten extinction of life.

I have never heard of the application of electro-magnetism to this and the preceding variety of bony tumors, but from its benefit to similar growths in the soft tissues, I am inclined to the belief that its employment in these growths would lead to the most satisfactory results, and I shall improve the first opportunity afforded me to test its application in this direction, with the greatest faith in its curative value, especially in the smaller tumors and in the earlier periods of the disease, before disintegration of the structures has occurred.

6. ANEURISMAL TUMORS.—These tumors, also known as osteo-aneurisms, consist in an extraordinary development of the minute vessels inosculating the bony structure, and present all the characteristics peculiar to aneurisms by anastomosis of the soft parts. They usually occur in the extremities of one of the long bones, and the head of the tibia is the most frequent seat of the disease. Although generally confined to one bone, they have been known to occur in several at the same time, viz., the cranium, sternum, vertebra, ribs, and innominate bones. No particular period of life is exempt from attack, but those in whom the disease has shown preference have been young adults. The disease always begins in the cancellated structure, which becomes broken down and converted into various sized cavities or chambers filled with coagulated blood, disposed in concentric layers, as in old aneurismal tumors. The external lamina of the bone is expanded, thinned, and perforated, which gives a slight crackling sensation upon pressure, or it is soft, flexible, and elastic, and yielding to pressure like a piece of bent cartilage. The periosteum is thickened and indurated, and singular to remark, the joint in close proximity to the tumor shows no evidence of diseased action. At first the patient complains of an occasional shooting pain at the seat of the growth, which is soon followed by swelling and more or less constant pain in the part,

with a fulness and tension of the veins of the leg. In a short time the whole limb becomes dark-red and painful, and the tumor possesses a pulsatory movement synchronous with that of the left ventricle. In its advanced stage, this pulsation is accompanied with a species of undulating movement, which is easily interrupted by pressure on the main trunk of the artery between it and the heart. These tumors vary in size from that of a walnut to the dimensions mentioned by Mr. Bell, in which case it acquired the bulk of nineteen inches in circumference by upwards of six inches in length. As these tumors are usually immovable this circumstance assists in determining their true character. The causes inducing this disease have been referred to various injuries, such as the effects of a blow, a fall or jump from a considerable height, &c.

Treatment.—The medical treatment of osteo-aneurism and the records of cases treated are so exceedingly limited, and the results following the use of internal remedies are so obscure, that it is impossible to give any precise indications governing the systemic treatment to be pursued in this disease. The remedies usually employed in the treatment of aneurisms in the soft parts, are equally beneficial in the treatment of the same diseases in the bony structure. My own experience in the treatment of this disease, however, is so exceedingly limited that I have nothing of value to present in this direction. The remedies most appropriate to control the heart's action and subdue irritability of the arterial vessels are: *Aconite, Actea racemosa, Cactus grand., Digitalis, Gelseminum, Spigelia* and *Veratrum viride.* After the arterial impulse has been subdued, and the irritability of the arterial vessels controlled, either of the following remedies may be employed, with the hope of obtaining some good result, viz., *Bryonia, Calcarea carb., Carbo veget., Carbolic acid, Lachesis, Lycopodium, Mercurius, Rhus, Secale cor.* and *Sulphur,* according to the special indications in each case.*

Incision into a pulsating tumor in bone, or any attempt to remove it without its osseous connections, is contrary to the rules of

* Vide "Aneurism," vol. ii, p. 191, Franklin's *Science and Art of Surgery.*

good surgery, the hemorrhage being alarming and dangerous. Resection has been attempted, but with indifferent results. Liston, in a tumor of this kind growing from the scapula, which he called "an ossified aneurismal tumor of the subscapulary artery," excised the greater portion of the bone from which it sprang; but fungous growths appeared in the wound, by which the patient was at last exhausted. When the disease has increased to such an extent as to produce extensive alteration in and destruction of the tissues of the affected bone, and the remedies employed have no beneficial effect, amputation is the only resource left to the surgeon. This operation is also called for in those cases in which the disease returns after ligation of the artery has been accomplished and failed. In the event of the disease degenerating into an encephaloid character, the limb must be promptly removed at a point above the affected bone.

The result of ligating the main artery of the limb leading to the tumor depends largely upon the nature of the growth. When it is partly composed of encephaloid or other solid tissue, but little good can result from this proceeding; the tumor will continue to increase by an inherent growth, that will be kept up so long as the vitality of the limb is maintained. Hence, in all such cases where this operation has been practiced, the progress of the tumor has either not been retarded, or if the pulsations have been subdued and its size lessened for a time, the activity of the symptoms has speedily returned, and amputation has been rendered necessary. In those cases where the tumor partakes more of the character of true osteo-aneurism, a more favorable result has followed the ligation of the main artery of the limb. In a case of this kind reported by Mr. Roux, occurring in the upper extremity, the ligation of the brachial artery resulted in a perfect cure. An instance of the same kind, successfully treated in the same manner, is reported by Lallemand; and in a patient of Dupuytren, where ligation was performed, there was no return of the disease for upwards of six years, when it recurred, and amputation became necessary. These results are sufficiently satisfactory to justify the surgeon in having recourse to ligation, or perhaps the compression of the main artery of the limb, in those

cases in which the tumor could be ascertained as not partaking of the nature of encephaloid degeneration.

I cannot permit this important subject to be concluded without reference to the osteogenetic property of the medullary tissue of bone. It has always been believed that the reproduction of bone in various cases, where destruction has occurred either from disease or the knife of the surgeon, was entirely due to the periosteum, which has been proven not to possess *exclusive* bone-producing property. The beautiful provision of nature, acting through the agency of minor laws which exist under the influence of modified conditions, in its adaptability to preserve the various portions of the organism, calls into active existence other tissues than the periosteum, under certain circumstances, which possess in a great degree this property of reproducing bony structure. It is well known that a bone denuded of its periosteum does not necessarily become necrosed, but may be, and often is, re-covered with a new periosteum. This is especially the case in young subjects; the denuded surface retains an intimate vascular connection with the medullary structure, which possesses, like the periosteum, an inhererent osteogenetic property. The knowledge of this fact is of importance to surgeons in the various injuries and diseases of bone, and in the removal of bone partially denuded of its periosteum. This bone-producing property of the medullary tissue is called into requisition in the repair of fractured bones as well as in other injuries, and is secondary only to the periosteum in its importance as an agent of osseous reproduction;—a peculiarity of the bony product created by the medullary tissue is its invariable absorption, unlike that produced by the periosteum, which is permanent. The medullary tissue when transplanted, it is ascertained, produces bone the same as periosteum. This osteogenetic power of the medullary tissue is supposed to exist in its vascular plexus, which is supported by the oily-like constituents of this structure, and which receives its nourishment from the nutrient arteries of the limb. It has long been known that the superior and inferior epiphyses of all long-bones unite to the shaft at different periods of life, but it is only recently that this difference is known to depend upon the direction of the nutrient artery. It

is this same circumstance that teaches us that fractures heal more quickly at that end of the bone towards which the blood flows in the nutrient artery, than at the opposite; and we also see, in the case of non-union of a fractured bone, that the want of union depends upon injury inflicted upon the nutrient artery at its entrance into the bony tissue. If so great an influence can be exerted upon the nutrition of a bone by a slight *increase of pressure* in a given direction, how much more reason have we to believe that far greater differences in the conditions of vascular supply would cause marked variations in the phenomena of disease. It is probably upon these very conditions that diseases manifest a preference for the various structures of the osseous system, and it is an ascertained fact, that of the two great progenitors of disease in the human family, scrofula and syphilis, the former manifests itself most frequently in the spongy structure, and near the articulating surfaces of bones, while the latter exercises its predilections in the fibrous covering of compact bones. Many more examples of this kind might be enumerated to prove the fact, if it were needed, that the location of disease, as respects the position of the bone, is *diagnostic* of the character of the morbid action; and its relative position to the nutrient artery of the bone is *prognostic* of its probable termination.

PART II.

MALIGNANT TUMORS IN BONE.—All forms of malignant diseases are met with in the osseous system, but the encephaloid or medullary is by far the most common. Of fifty-five cases of malignant diseases collated by Holmes, thirty-five were classed as belonging to the encephaloid type; four as osteoid, four as scirrhous, three as epithelial, one as areolar, one as melanosis of the periosteum, and the other two were tumors of doubtful character and anomalous structure, but probably malignant. Thus it will be observed that of all these affections encephaloid is the most frequent; next in point of frequency is the osteoid, and following this in order comes the scirrhous, and the most infrequent of all is melanosis. The origin, progress, and termination of cancer in the bony system, is the same in all respects, pathologi-

cally considered, as in the soft tissues; and in reviewing the internal structure, growth and morbid condition of this disease, I shall avail myself of the description given of "Cancer and Cancer-cells" by Dr. S. T. Speir, in a valuable paper read before the New York Academy of Medicine, as follows: "For most pathologists," says Dr. S., "the words heterologous and homologous have a definite meaning. If a new growth is formed of the same tissue as the part from which it grows, it is called homologous; if it is formed of a different tissue, it is heterologous. That is, if a bony tumor grows from bone, it is homologous; if from fibrous tissue, it is heterologous," &c. Dr. Speir gives to these terms a new definition, which is obtained from a study of these diseases through the observations made by the microscope, and which establishes the nature of the growth, not from the tissues they spring from, but in reference to their integral formation; that is to say, if the new growth is composed only of *one kind of anatomical elements*, he terms it homologous, and if of two kinds, heterologous. Therefore "*myoma*, if it is composed only of muscle-cells, it is homologous to itself; if of muscle-cells and fibrous tissue, it is heterologous to itself. If it grows from the uterus, it is homologous as to its situation; if from connective tissue, it is heterologous."

On this basis Dr. Speir lays down these rules:

To be malignant, a growth must be either homologous as to the other tissues, and homologous as to its own cells; or heterologous as to the other tissues, and homologous as to its own cells.

A semi-malignant growth is homologous as to the other tissues, and heterologous as to its own cells; or heterologous as to the other tissues, and homologous as to its own cells. A benign growth is homologous as to the other tissues, and heterologous as to its own cells. As examples of these, the lymphatic glands are often found in an hypertrophied condition; if the hypertrophy consists in a simple increase of the gland-cells, and being a growth homologous to itself, it necessarily implies that the growth is cancerous. These are the forms of cancer-growth that are so readily cured, either by medication or extirpation. The stump, after amputation, is sometimes covered with granulations of exuberant growth, and composed of small, round or oval cells, which

are the true cancer-cells. This form of cancer, heterologous to the other tissues and homologous to itself, is often cured by remedial measures.

We might go on enumerating the various structural growths that occur in the system, and define their natures under the rules laid down by Dr. Speir, thus simplifying the nomenclature of disease, and pointing out with greater accuracy than heretofore the treatment adapted to each. The whole history of cancer is enveloped in doubt and confusion, from the many conflicting hypotheses touching its real nature; but, after mature consideration of this subject, and a review of the many cases submitted to my treatment, with the conditions involved, I am inclined to accept the doctrine promulgated by Mr. Paget, that *true* cancer is always the result of an exciting cause ingrafted upon a cancerous diathesis, which produces local degeneration first in the part injured. True cancer is not curable, so far as our present knowledge goes, until the cancerous diathesis is eradicated. *False* cancer does not depend upon, or rather is not the result of any constitutional or cancerous poison, and is therefore amenable to medical or surgical processes; and I believe the time is not far distant, when, by means of the microscope, this peculiar constitutional diathesis which I term cancerous will be demonstrated to exist by virtue of some poisonous and abnormal properties existing in the blood, either hereditary or acquired.

I shall group all the malignant affections of bones under the one head of osteo-carcinoma, which may be still further subdivided into the following varieties, viz., *Encephaloid*, *Colloid*, *Scirrhus*, and *Melanosis;* but for all practical purposes the classification I have adopted answers every indication in treatment.

OSTEO-CARCINOMA.—This affection is almost exclusively confined to the bones as a primary disease, although it has occasionally been found in the soft parts without any involvement of the bony structure. Osteo-carcinoma may be either a *primary* disease, manifesting its local origin in some part of the bony system, or it may be *secondary*, and dependent upon the disease affecting some other and perhaps remote organ. As a peculiarity of this disease, it has been ascertained by statistics from the Surgeon-General's Department, Washington, that cancer, like consump-

tion, is affected by the law of latitude and proximity to the sea, which may be thus stated:

1. Consumption and cancer prevail most near the sea, and diminish as you recede from it.

2. At equal distance from the sea they prevail most at the north, and diminish as you go south.

These and other statistics of cancer, touching their frequency in the human subject, are matters of deep interest to the profession, and it is hoped that future observations in this direction may be of advantage in ascertaining, if possible, the cause upon which depends the existence of one of the most implacable enemies to the human family.

Symptoms.—Osteo-carcinoma may occur in any bone in the body, but its more frequent seat is in the long bones of the lower extremity, and the femur being of all others most frequently attacked; but of forty cases of primary cancer tabulated by Holmes, twelve occurred in the femur, eight in the bones of the leg, five in the skull, three in the pelvis, and three in the spine. The others were single cases, and scattered about the various regions of the body. The neighborhood of the knee-joint is a favorite seat of cancer, so that a soft tumor springing from the lower end of the femur or the head of the tibia is always viewed with much anxiety, and of the above-mentioned twenty cases of cancer occurring in the long bones of the lower limbs, eleven are noted as having had their seat near the knee-joint.

Osteo-carcinoma presents itself in three principal forms, viz., *periosteal*, *interstitial*, and *infiltrated*. The first is the most frequent, the second occurs less often, and the third is quite rare. When the disease has existed for some time, the whole bone is softened by the distension of its cells with the material of soft cancer, leading to partial or complete absorption of the cancelli, and general disintegration of the bone, forming the disease termed "mollities ossium," which will receive due consideration under its proper heading in this bureau.

The *periosteal* form of osteo-carcinoma is more frequently met with in the long bones, or bones of locomotion; while the *interstitial* or scirrhus commonly attacks the flat bones, such as the skull and pelvis, and the ends of joints, and occurs in the form of

nodules of various shapes and sizes, whitish in appearance when recently deposited, and emitting a creamy-colored juice when squeezed with the fingers. This *interstitial* deposit of cancer produces a constant dull pain in the part, and gradually increasing involves the integrity of the bone, which becomes fractured on some slight injury, or even muscular contraction.

"In the *periosteal* form, the tumor makes its appearance sooner and grows more rapidly than in the interstitial variety. The subjacent bone is rarely affected, and a section of the disease shows a ring of healthy bone surrounded by a radiating mass of malignant substance. The periosteum appears in some cases to have degenerated and become converted into the structure of the tumor; in others, it may be traced over the tumor, which then seems to grow between the bone and periosteum. In this form of disease there is a strong tendency to ossification, so that, after maceration, a large quantity of irregular bony deposit is left on the surface of the bone, forming very often a coral-like mass, with some approach to a spiral arrangement of its laminæ. These specimens were often described by the older writers as periosteal exostoses, their true nature being overlooked in consequence of the bone not having been examined till after maceration."* Bony cancer is said to be a disease less rapidly fatal than the same disease in the soft parts; the true encephaloid cancer in bone is more rapidly fatal than scirrhus, although its progress in the osseous structure may be less rapid than in the soft tissues.

Diagnosis.—In diagnosing osteo-sarcoma from other diseases in bone, two important considerations are presented to the surgeon.

1st. To distinguish between a soft tumor and an abscess, or other inflammatory affection.

2d. To distinguish between a malignant and a benign tumor.

The diagnosis between a tumor and an abscess is not as easy as it may appear. "The question occurs," says a distinguished writer, "in the neighborhood of a joint; where also the doubt sometimes is, whether the swelling is not due to thickening of the synovial membrane. Generally speaking, however, the soft

* Holmes's *System of Surgery.*

tumor is limited to one *portion* of the circumference of the bone, while disease of the synovial membrane would involve the *whole* circumference, although not necessarily equally prominent over the whole. Further, the chronic thickening of the synovial membrane will have been preceded by a long course of symptoms of disease in the joint, and these symptoms will probably have been more acute at some previous time; while the tumor will have commenced much more recently, at first without any symptoms, and the symptoms will have been more marked as the tumor got larger. Limited abscesses, also, in the thickness of the swelling are common in the chronic synovial disease, while abscess is a rare complication in the course of a tumor, and then forms external to it and singly." In such cases, where the thickness or tension of the soft parts over the tumor gives reasonable doubt as to whether the contents of the swelling are a soft solid or a collection of fluid, the use of the aspirator or exploring-needle will soon solve the question. Usually, however, the lobulated surface of the malignant tumor and the healthy and uninflamed state of the tissues overlying the abscess, are sufficient to distinguish the one from the other.

Oftentimes the diagnosis between malignant and innocent tumors is very difficult, and sometimes impossible. It is of most importance, and unfortunately it is the most difficult, to distinguish between those tumors which grow around the lower end of the femur. In this position malignant and myeloid tumors bear the strongest resemblance to each other, so that the diagnosis oftentimes between these growths is only conjectured. The surgeon must give the utmost care to the following points, viz.: The length of time the tumor has existed without contamination of adjacent parts of the system; the bulk to which it has attained; the extent of its attachment to the bone. Benign tumors, as a rule, affect the cancellous ends of bones, while malignant surround the shaft to a considerable extent, forming a long, oval tumor, like a great ferrule. In general, malignant tumors of bone may be known by their large size, the rapid growth, the soft consistence, the unequal density of different parts, the large veins which ramify in the overlying tissues, the extent of their attachment to the bone, the amount of pain attending their growth, the presence oftentimes

of large sanguineous cysts, the rapid destruction of bone attending their growth, and the *constitutional* trouble which accompanies the local disease.

Causes.—The causes which produce this disease are still enveloped in mystery. Some surgeons, among whom may be classed the great Velpeau, attribute its origin to a "hereditary taint," which, he argues, was the exciting cause of upwards of one-third of the cases met with in his practice. Other authors deny this cause, and refer the disease to an injury, blow, or accident done to the part. My own views are, however, different from either of the parties referred to, for I believe that this disease is dependent upon some morbific agency existing in the system *à priori*, and is brought into active disturbance only by a blow, injury, or other mechanical violence. As in tuberculosis of the lungs, which is developed by a cold, the disease existed dormant in the system long before the cold was contracted; so in osteo-carcinoma, the constitution is primarily tainted, and only awaits a favorable opportunity for development. If the presence of this constitutional taint is not the originator of the disease, why does not every blow, injury, or mechanical violence produce carcinoma in all persons subject to these injuries? All things being equal, the same exciting causes will produce the same effects; hence these blows, injuries, or mechanical violence that produce cancer in one person should produce cancer in every other person subject to their action. I believe that it will not be long before the penetrating power of the microscope will prove that there exists in certain persons a morbific agent or principle that lies dormant in the system, to be wakened into new life and activity by some injury inflicted upon the organism, and that this morbific agent or principle is the latent force that produces the disease in question. "It has frequently been remarked," says Dr. Pattison,* "that hereditary cancer, like some other diseases, frequently passes from one generation and reappears in the second or even in the third, proving that the malignant virus is transmitted from parent to child. Otherwise, why should the second generation of these unfortunates be afflicted? This I can

* Pattison on Tumors.

prove by several cases, in one of which the disease has been transmitted for four generations. Again, we frequently meet with families in which one sex alone is afflicted." In one family in St. Louis, whom I have attended for upwards of a dozen years, three females have died of cancer, and another one is now lying dangerously ill of the same infirmity, and upon inquiry into the history of this family I found that their grandmother died of cancer of the uterus. I could multiply numbers of cases to prove the same thing, and at the present writing of this paper I can recur to a large, wealthy and highly aristocratic family, whose medical adviser I have been for years, who have assured me over and over again that *all of the female portion of the family* for two generations have died of consumption before reaching the age of fifty years. Undoubtedly every practitioner of medicine can recount examples of like import, which can be accounted for in no other way save that of primary taint, and if we deny the existence of this morbific principle pervading our constitutions, we shall be forever groping our way in the dark and blindly shutting the light of truth from our sight.

It is true we know little of this morbific agent inherent in the system and which gives rise to this implacable disease, but one thing we do know, from every day's experience, that there is an insidious poison, which may lie dormant for years, to be called into activity only after the application of some exciting cause; then when roused into active existence, in the form of a local manifestation of disease, may still lie dormant in the system for awhile, only to be wakened up sooner or later into that irresistible morbific and destructive principle which, if not overcome by remedial agents, saps the foundation of human existence.

Treatment.—The treatment of these several varieties of malignant disease may with perfect propriety be considered under one general head.

The benefits accruing from the use of internal remedies in osteo-carcinoma, have not availed as much as the treatment for carcinoma of the soft tissues, although a few cases of bone cancer are found in the recorded experience of homœopathic practice, in which more or less benefit has resulted from the use of internal medication. This I believe to be due not so much to the con-

sideration that homœopathic remedies are not curative of this disease, but rather to the fact that such maladies are placed within the province of the surgeon rather than of the physician; that the former, relying more upon his scalpel than a well-directed system of medication, and ignoring the fundamental principle of constitutional contamination, meets too often with failures; while the latter, applying the appropriate remedies, frequently meets with success. These are the two extremes that are met with in the profession, and if my judgment, observation and experience possess any value in this matter, I should say that both parties were partially right and both partially wrong. There is no doubt of the fact, that if this disease is treated either by the medication of the physician, or the local expedients of the surgeon, without reference to the constitutional taint inherent in such persons, neither will be successful in the cure of their patients. The truth, therefore, in my opinion, lies between the adherents of these two positions. The rapid substitution of one remedy for another by the medical practitioner, and the ignoring of the various principles of surgical treatment, as they have been presented under the different forms of *caustics*, *compression*, *congelation*, *leeching*, *ligation*, *electricity*, and the *actual cautery*, *&c.*, show how untenable are these methods of treatment when considered in reference to the cure of this malady. I speak with reference to cancer in the soft tissues. The only expedient that has maintained up to the present time even a respectable degree of certainty, amid the ever-changing methods hitherto practiced, is that of removal of the local disease, while internal remedies are given for the eradication of the constitutional taint. The manner of removing the "local origin" of the disease differs, however, in the hands of different surgeons, and *two* methods stand prominent before the profession to-day as the representative types of local treatment; these are *excision* and *enucleation*.

Excision.—With regard to this operation, it is true that surgeons are divided in opinion as regards the propriety of the procedure in cancerous diseases in the soft tissues, and still more so when the disease attacks the bony system. In all cases of osteo-carcinoma, the first duty of the surgeon is to place the patient under a careful and systematic course of constitutional treatment,

and endeavor if possible to subjugate the disease at the very threshold of its progress. The remedies proven to possess the most curative action are *Hydrastis Canadensis, Nymphæa alba, Scutellaria lat., Carbolic acid, Galium aperinum, Myrica cerifera, Xanthoxylum fraxineum;* and *Arsenicum, Carbo animalis, Euphorbia cor., Gelseminum* and *Veratrum vir.*, as corollary remedies, when indications demanding their use are called for. If, after a careful and sytematic course of treatment the remedies hitherto recommended are of no avail, the only recourse left for the surgeon is *excision* or *amputation.* These operations, however, are not promising of uniform success, although many, many instances have occurred where after the operation and constitutional remedies have been properly and persistently employed, complete recoveries have taken place; but, without appropriate treatment, cancer affecting the bony system is exceedingly liable to return, and indeed with greater rapidity than when involving the soft structures. Says Gross: "In all cases of encephaloid of the extremities, that I have either operated upon myself or seen operated upon by others, there has been a speedy recurrence of the disease, often indeed in less than three months, either at the cicatrix, the neighboring lymphatic ganglions, or in some internal organ, carrying off the patient some time afterwards. I am aware that exceptional cases are sometimes reported as cured; but they are only exceptional and nothing more, to say nothing of the fact, that there may occasionally be in these cases an error in diagnosis. The tumor, although possessing some of the outward properties of osteo-cephaloma, being in fact only a benign one, appertaining to the osteo-sarcomatous class of the older writers. Judging from personal observation, I am inclined to believe that malignant growths of the maxillary bones are less liable to relapse after operation than those of any other portions of the skeleton; and in this view of the subject, if I mistake not, the opinion of practitioners generally coincide. Nevertheless, even here, the ultimate issue of the case is nearly always unfavorable." There can be no stronger evidence of the entire lack of remedial means in the allopathic school for the *cure* of this disease, than this testimony from the writings of one of the greatest surgeons of the age; and the whole literature of the allopathic profession

bears evidence of the truth of the statement above quoted. That the operative procedure itself has been as well doné in this school as it can possibly be accomplished in our own, is a point that no one will question, but under the same operations, the patients in one school or rather under one practice die, while under the other a majority of them live. This is sufficient testimony to prove the value of that treatment which regards this disease as a constitutional infirmity, and that the disease in the bones is only a local manifestation of the affection attacking the part involved.

Dr. John Pattison, of London, a gentleman of eminence in the homœopathic profession, and for a long time a practitioner of allopathy, has probably given more attention to the nature and treatment of this disease than any member of the profession; and the distinguished success attending his treatment of this disease in the soft structures exceed those of any other living physician. For sixteen years as a specialist in London, he commenced his career, confining his attention almost entirely to the treatment of malignant disease; and for more than twenty-six years a student of malignant disease, his attention had been directed to the structure of the parts implicated, and the nature of the disease under observation. He thus writes: "Constantly bearing in mind that the two great objects a physician has in treating malignant disease are, first, to remove the local disease with as little irritation and suffering as possible; and, secondly, to use such prophylactic remedies as will most likely tend to prevent a recurrence of the disease, I have for years pursued the following system:

"First, to remove the disease. On reviewing the opinions of the leading authorities, present and past, and remembering my own experience, I soon became convinced that exsection by the knife was not only futile, but injurious, in almost every case hastening on the fatal termination. In examining the effects of caustics as usually applied, I found them not only to be painful and tedious, but, from the great amount of inflammatory action set up, more injurious than even resection. My attention was then drawn to the modified use of caustics known as enucleation, which, when properly managed, overcame many of the difficulties

to which exsection and the old mode of applying caustics are liable." This process of *enucleation*, to which I referred in a previous page as the *other* method of getting rid of the diseased mass, is only appropriate to the disease when it invades the soft tissues, and consequently cannot be but rarely employed in osteo-carcinoma. The reader will find a detailed description of its use in a recent monograph written by Dr. John Pattison, entitled "Tumors, their Nature and Treatment."

In regard to the choice of the operation, as to whether it should be *excision* or amputation, the decision should always, if possible, rest with the former whenever the morbid growth occupies an extremity; the removal should be effected so far above the morbid growth as to secure sound and healthy tissue for the flaps. Allopathic authority recommends that the amputation in osteo-carcinoma take place in a locality considerably removed from the part involved, although I can see no benefit to be derived from this course, so far as subsequent occurrence of the disease is concerned. Thus, when the hand is involved, the forearm should be amputated near the elbow; and, in encephaloma of the radius and ulna, the limb should be taken off at or close to the shoulder. If the tumor be seated in the upper jaw, the whole of that bone should be excised, as well as all other parts affected with the disease. In all cases it is absolutely necessary that every part of the growth should be removed, so as to prevent if possible the recurrence of the malady. After operation the parts should be dressed with carbolic acid lotion, continually applied until the healing process is completed, for the purpose not only of producing its antiseptic properties, but also of destroying the germ-cells, as well as all other exciting causes to the recurrence of the disease.

OSTEO-TUBERCULOSIS.—This disease, usually attacking the vertebræ, the short bones of the hand and foot, and the articulating extremities of the long bones, is frequently observed by the practicing surgeon. The seat of the disease is in the spongy structure, though occasionally it forms upon the outer surface of the bone, between it and the periosteum. At times the tubercles are encysted; the inclosing membrane at first is soft, but gradually becomes firmer, until it acquires the consistence of cartilage.

This investing membrane is of a dull grayish color, and is composed of delicate inelastic fibres, crossing each other in every direction, which are supplied with delicate vessels passing into it from the surrounding tissues. There are oftentimes quite a considerable number of these tubercles, their sizes ranging from that of a pea to that of a hickory-nut; when disintegration of these bodies takes place, and they become softened, the matter passes out and finds its way into the neighboring joint, forming a fistula, as occurs under the same circumstances in the pulmonary structure.

Another variety of this disease is where the tuberculous deposits are deposited in the cells of the bone, forming grayish, semitransparent, opaline patches, from one-sixth to an inch in diameter. These deposits take place chiefly in the bones of the tarsus and bodies of the vertebræ, where they are provided with a fine network of delicate vessels; the bony tissue in the neighborhood being deeply injected with numerous small vessels, too small to be discernible to the naked eye. When softening takes place, as in the preceding variety, this vascularity disappears by destruction of the bony parenchyma, and the cells are filled with earthy matter, or the work of destruction goes on until the bone is entirely destroyed.

The progress of this disease is slow, especially in the infiltrated form, where it involves almost complete destruction of the bony tissue. "The matter resulting from the disintegration of the heteromorphus," says Gross, "is similar to that which occurs in the lungs, in the advanced stage of phthisis, being of a pale yellow color, bordering slightly upon greenish, and of a thin fluid consistence, with small whitish flakes, not unlike soft-boiled grains of rice. After an opening has been effected into the abscess, the discharge generally becomes very watery and bloody, as well as irritating, and comes away in large quantities, a number of sinuses often existing in the diseased parts, as if they were necessary to carry off the superabundant secretions. In many cases broken-down osseous tissue is intermingled with the pus, passing off either as little granules, or as minute fragments, which not unfrequently choke up the abnormal track, and thus excite new irritation."

The abscess that arises from the disintegration of the tuberculous matter in the bony system, is known by the following symptoms, which, though enveloped in considerable obscurity, may be appreciated by the existence of a deepseated, gnawing pain at the part affected, with excessive tenderness at one particular spot, and a shining, glossy, œdematous appearance of the integuments overlying the diseased portion. The breaking of the abscess is preceded by considerable swelling of the soft structures, with more or less febrile irritation and disturbance of the digestive functions, the system frequently sympathizing extensively with the local trouble. In addition to these symptoms, the surgeon will be guided to a proper diagnosis by the condition of the patient, the previous history of the case, the locality of the disease, and the presence or absence of scrofulous disease in other parts of the body.

Treatment.—The treatment of tuberculosis of bone is precisely the same as that when the same disease attacks the soft structures. It should be borne in mind that this disease, like osteocarcinoma, is only a reflex action of a deep and latent malady invading the constitution, and the only way to cure it is to give those remedies that are appropriate to tuberculosis in other organs and tissues, to which the reader is referred in the various works on practice and the Materia Medica.

It should be borne in mind that in addition to the remedial measures thus employed, attention should be given to the general health of the patient, and the use of those dietary means that will give tone and energy to the already depressed organism.

The local remedies are the same as those recommended for simple abscess in the soft tissues. Before the breaking of an abscess of this character, and when one is suspected, it is proper that the surgeon incise the soft parts to the bone and trephine the part over the disease, and thus permit the pent-up discharge to have free passage externally. The after-treatment will be in all respects like that of simple abscess, to which the reader is referred in our surgical works.

LVI.

SUPPURATION AND ABSCESS OF BONE.

By M. W. Wallens, M.D., Somerville, N. J.

Suppuration of bone occurs in two distinct forms: the *acute*, which is generally diffused, and the *chronic*, which is circumscribed and of very rare occurrence.

In treating of the *acute* form, the intimate relationship of the periosteum, bone, medullary membrane and medulla must be borne in mind, for we find that in acute diseases of any one of the four, the other three are very apt to be more or less involved. Acute suppuration of bone but rarely occurs in the compact tissues, and then only as a result of periostitis. It generally begins in the medullary membrane, and diffuses itself rapidly throughout the cancellous structures, being limited only by the epiphysial lines. It commonly occurs as a consequence of compound fractures, amputations, or operations on bones in which the medullary canal is opened. It may be suspected when, after such an occurrence, the limb swells, becomes painful, and the patient complains of chills more or less marked. The discharge of pus soon becomes very profuse and persistent, often dark and fetid.

The *prognosis* is always grave, for it is very apt to end fatally, or at least render amputation of the limb necessary. Death occurs either from the prostration resulting from the excessive discharge, or else by pyæmia or phlebitis. The peculiar open condition of the osseous veins predisposes strongly to phlebitis, which is the most dangerous and frequent result. It is also said in

some cases to give rise to thrombosis and embolism. After compound fractures it is the upper fragment that is usually affected.

On examination of the bone after removal, the medullary canal is found filled with pus or a reddish puriform fluid, the medullary membrane inflamed and softened, the compact bone has a pinkish tinge, the cancellous structure is bright red, and the minute canals of the bone are infiltrated with pus.

Treatment.—During the first onset of the disease, a prompt administration of Aconite or Bryonia would lessen the inflammatory action, and perhaps limit the extent of the suppurative process. When the patient has become much prostrated, with slow wiry pulse, I have seen Veratrum viride in crude doses, restore the vitality of the patient, so that he was able to undergo a subsequent operation successfully. Cinchona would be of benefit when anæmic symptoms occur, especially if the prostration results partly from hemorrhage.

Hepar sulph. calc. and Silicea, both exert an excellent influence in controlling suppurative processes.

Belladonna for acute pain in the limb, accompanied with cerebral complications.

Mercurius vivus when the patient suffers mostly at night, and the case is complicated with a syphilitic taint.

Many other remedies are also called for according to circumstances, and the above list is intended to be merely suggestive.

As for local treatment, but little can be done to save the patient's life, except to remove the entire bone affected, even to amputation at the hip-joint, if the condition of the patient warrants such a formidable operation. The operation should not be delayed until pyæmic symptoms set in, for if pyæmia is fully established the case is almost hopeless, with or without an operation. The diet should be as stimulating and supporting as the patient can bear.

There is always a possibility that the diseased bone may become separated, and come away by the slow processes of nature; but experience teaches that but few patients have sufficient vitality to withstand the long-continued drain upon the system. I believe that careful homœopathic treatment, with a proper diet, will do much towards promoting such a happy result.

The *chronic* form of *abscess of bone* (as stated before), is usually limited to a small space, and occurs most frequently in the cancellous tissues of the tibia. Syphilis and abuse of mercury strongly predispose to an attack. It is often caused by a blow upon some exposed portion of a bone. It is generally very slow in its development, and the symptoms of pain, &c., often remit for days, weeks, or months, then to recur again with greater severity. The bone becomes tender in one spot, and the pain is of a lancinating aching character, until some vent is found for the discharge of the matter. The patient suffers mostly at night. The cavity of the abscess is often found to contain small fragments of dead bone. The pus occasionally finds its way into the neighboring joint and thus leads to anchylosis.

Treatment.—Owing to the dense character of the bones near their surfaces, it is difficult and often impossible for the pus to find its way to the surface, without surgical interference. As soon as the surgeon is well satisfied of the presence of an abscess or fragment of necrosed bone, within the substance of a bone otherwise sound, he should make an opening for its exit, either with the trephine or other instrument that may seem best fitted for the object. The opening need be but small. The relief will be great and probably permanent. If this is neglected, in course of time the whole bone may become involved in disease, rendering amputation necessary. After the cavity is open it should be syringed out daily with a solution of the Permanganate of Potash or Carbolic acid. The external wound should be kept open with lint, to compel the cavity to heal from the bottom. Homœopathic remedies, and a good nourishing diet, will greatly aid, by keeping the system of the patient in good condition. Moderate exercise of the limb in the open air will generally do no harm. I have seen an abscess of the head of the tibia of nearly three years' continuance, permanently cured by the use of Phosphoric acid[4] for only a few weeks. The bone was so honeycombed that I could pass a probe for two or three inches through it in any direction. The only piece of necrosed bone discharged was no larger than a pea, proving the cavity to be a genuine abscess. As the progress of these cases is always slow, the

physician has ample time, which duty he should not neglect, to study out the peculiar characteristics of the case, and its best remedy.

I would suggest a study of the following, each of which, either clinically or by its provings, is at times indicated: Phosphorus, Calcarea carbonica, Calcarea phosphorica, Nitric and Fluoric acids, Mezereum, Sulphur, Mercurius in its different preparations, Cinchona, Silicea, Hepar sulph. calc., Staphysagria, Asafœtida and Lycopodium.

LVII.

CARIES.

By C. P. Seip, M.D., Pittsburg, Pa.

Caries is a disease of the bones which is described as analogous to ulceration of the soft parts. It is almost impossible to give a concise definition of the disease. It is an inflammatory affection of a subacute or chronic character. Increased vascularity, with softening, suppuration, and ulceration, followed by disintegration, with decrease of the earthy parts, and sometimes complete destruction of the bone, are some of the main features connected with the disease. The causes are almost identical with those which produce necrosis. The exciting or direct causes are generally of a traumatic nature, but the existence of the disease almost always depends upon some constitutional cachexia, or other unfavorable condition. Among the constitutional defects may be mentioned scrofula, syphilis, scurvy, in fact, anything which will bring on a vitiated state of the blood. Caries is sometimes produced by very slight exciting causes, and runs its course without any apparent connection or dependence upon any constitutional dyscrasia.

No portion of the osseous system is exempt from the disease, although those bones which consist principally of cancellated or spongy structure are most frequently attacked. In point of frequency children and young persons are more particularly subject to caries. The articular surfaces of bones being composed principally of spongy cancellous tissue, with only a thin covering of a more compact bone, and the nutrient supply being very limited

before the epiphysis has united with the shaft of the bone, they are extremely prone to become carious from slight injuries or chronic inflammation. This fact has caused some pathologists to believe that it is owing to the peculiar condition of vascular supply that caries so frequently occurs in children. It is known that some of the small flat bones are entirely dependent upon the periosteum for their nourishment; in these caries seldom terminates until the bone is destroyed. For instance, the nasal bones have no other source of supply than that derived from the periosteum, and in them chronic periostitis seldom terminates before effusion between the membrane and the bone has taken place, in consequence of which the nutrient supply is cut off, and part of the bone becomes carious, or if the whole membrane be affected, then the entire bone is deprived of its nourishment, and necrosis is the result.

In the long bones caries runs a more favorable course. In them we find large arteries which enter the shafts of the bones to the medullary canals, sending branches upwards and downwards until the ramifications anastomose with the arteries of the compact and cancellous tissue. The occurrence of periostitis in these bones is not always followed by caries of a serious nature, providing it is not located near the articular extremity. This may be attributed to the fact that these bones are not entirely dependent upon the periosteum for their nourishment.

In the early stages of caries the bone is inflamed, vascular and softened. This inflammation is accompanied or even followed by an exudation of an oily, reddish-looking serum, which infiltrates through the bone, and is soon converted into pus. As the process of destruction goes on the bone becomes disintegrated and still more softened, the pus accumulates in small cavities, and tends to come to the surface of the bone in small abscesses. They point and break, or are opened by the surgeon, and discharge a substance which is sometimes quite healthy-looking pus, at others it has the characteristic flaky appearance so frequently seen in strumous subjects.

While the process of destruction is going on, there is also an ineffectual effort made to repair the damage done by the disease. This is evident from the fact that new bony deposits are seen

around the central points of carious bone. The deposits are sometimes very slight in extent, but most frequently they are of considerable size, and may extend to neighboring bones which are entirely free from disease. It is by this deposit that anchylosis is produced in caries of the vertebræ. When a favorable change begins to take place, this deposit is more abundant and extends from one vertebra to the other, which fuse together, thus forming a complete anchylosis. Some difference of opinion prevails as to the origin of the newly formed bone. The generally accepted opinion is that it is produced by the periosteum; while some pathologists maintain that it does not proceed from the periosteum, but grows direct from the bone.

Diagnosis.—In the first stage of caries it is almost impossible to ascertain the true nature of the disease. Constant pain, with swelling and redness, with more or less loss of function of a bone or joint, are some of the most prominent symptoms of the first stage. The persisting nature of these symptoms, followed by abscesses which show no tendency to heal, the character of the discharge, and the granulating surfaces of the mouths of the sinuses, may lead to the presumption that caries exists. This opinion is much strengthened if small spiculæ of bone are found in the discharge, or if the probe comes in contact with rough and softened bone.

When carious bone is touched by the probe, or even penetrated, it does not usually cause much pain; perhaps there is no pain at all. It must be evident to every surgeon that in all cases of caries, there must be ulceration of the soft parts before a diagnosis can be made. Caries superficialis can readily be recognized, but the deepseated caries present a more difficult problem. Here the bone is frequently covered with proliferating granulations, the soft parts are much indurated, and the sinuses leading to the bone may be very tortuous.

The probe is with much difficulty introduced to the bottom of the sinus, and then may not come in contact with the bone, until it is forced through these fungous granulations. The constitutional disturbance is usually not great before the discharge takes place. After the abscess is opened, then fever of a hectic char-

acter is more marked. This varies much in different individuals, and is not always in proportion to the extent of the disease.

Caries of the vertebra in children often comes on very insidiously. All that has been said in regard to the frequent obscurity of caries in other bones, applies with greater force to the early stages of Pott's disease. It is essential that the affection be recognized in its earlier stages. Children usually show evidence of weakness in the back; they will often stop to bend forward, resting the elbows or hands upon the knees, or anything else that will support them, and after a few moments' rest resume their motion as before. Whenever these symptoms manifest themselves, the child should at once be carefully examined. If the spine is sensitive over several of the vertebræ, and there is difficulty in assuming the erect posture, with an unsteady gait, and the patients have gradually been losing flesh, we will have sufficient reason to believe that there is some serious disease in process of development. As the destruction of the intervertebral fibro-cartilage and the bodies of the vertebræ goes on, the characteristic deformity occurs in consequence of the inability of the spinal column to support the superincumbent pressure.

As soon as the formation of pus has taken place, it makes its way toward the surface. If the disease be in the cervical region the abscess may point upon the side of the neck, or behind the pharynx; if in the dorsal region the pus may follow down the aorta and make its appearance in the groin, or in the gluteal region. In caries of the lower dorsal or lumbar vertebræ the pus usually makes its appearance beneath Poupart's ligament. In some rare cases the abscess has pointed in the lumbar region. There is sometimes great difficulty experienced in making a diagnosis, which arises from the presence of iliac abscess. The pus in such an abscess may make its way through the sheath of the psoas muscle, and appear with many of the signs of psoas abscess arising from the vertebra. A mistake may be avoided by taking the history of the case into consideration, and the presence or absence of symptoms referable to the spine.

Prognosis.—The prognosis of caries depends much upon the bone affected, the extent of its development, and the nature of the constitutional dyscrasia. Scrofulous caries is the most ob-

stinate to treat successfully, and if the constitution be deeply tainted the case is almost a hopeless one. Caries of the vertebræ is the most unfavorable, and generally shows the scrofulous cachexia to its fullest extent; it is always dangerous to life. Recovery may take place by anchylosis, but a certain degree of deformity will always remain.

Syphilitic caries is more favorable than the scrofulous, which is probably due to the fact that we are more successful in eradicating the constitutional vice. In children and young adults in pretty fair health, in whom the disease has not made much progress, and the scrofulous cachexia is not marked, we may hope for a favorable termination. On the other hand, if the disease is in or near a large joint, such as the shoulder, hip, or knee, and the destruction of bone is great, and the suppuration profuse and long continued, life itself is in danger, from which exsection or amputation alone can save the patient.

Treatment.—The treatment of caries is a matter of great importance; for upon the success or failure of the treatment depends, not only the preservation of the bone or limb, but sometimes the life of the patient. As a general rule the treatment has not been very satisfactory; yet, if judiciously applied in the early stages, much may be done to avert the serious consequences that are sure to follow.

The constitutional defects should receive early attention; while, as long as they exist, all local treatment must be in vain. The general health must be improved; the diet should be plain and simple, yet at the same time nutritious. Exercise in the open air, if practicable, is of great benefit; but great care is required while it is being employed, or more harm may be done than good.

When symptoms of periostitis and ostitis make their appearance, we may often succeed in arresting the disease before any destruction of bone has taken place. The treatment of the inflammatory stage then is of great importance. To obtain the most favorable results at this period, absolute rest of the diseased limb must be strictly enforced. Much depends upon the manner and thoroughness in which rest is secured and carried out. It is essentially necessary, when the disease threatens to involve

some of the large joints in the lower extremities, to confine the patient to his bed, and secure the limb against accidental injury or involuntary motion by suitable apparatus. While securing the necessary rest, the position of the limb must be attended to. The limb usually assumes a position most comfortable to the patient, which is frequently a very faulty one; and should the limb be kept in such a position any great length of time, more or less deformity may be the consequence. Prof. Markoe highly recommends the elastic extension as the most complete and comfortable mode of securing rest to the limb and preventing faulty positions, while at the same time it relieves the pressure of the opposing surfaces of the joints. The means of extension is similar to that used in the treatment of fracture of the thigh, with the addition of an elastic band inserted between the foot and the pulley.

The application is very simple: it consists of a piece of adhesive plaster about two and a half inches in width, which is applied to both sides of the leg, or above the knee if the disease is in the hip-joint; the middle of the plaster forms a loop below the foot, a small block of wood is inserted into the loop, an elastic band passes around the block to which the cord is fastened, and the whole may be secured by a roller-bandage. This mode surely recommends itself by its simplicity and the comfort it affords the patient over more costly and cumbersome apparatus. It possesses many advantages; the parts can be inspected with the utmost facility, cleanliness is easily preserved, and local applications may be made without any inconvenience to the patient. But now that we have considered some of the many favorable points that may be obtained by this treatment of rest, let us not forget that some serious results may supervene from its too long-continued use. In consequence of the prolonged inactivity of the whole body, perphaps continuing through a period of many months, a degeneration of the reparative powers is produced, which not only materially interferes with the successful treatment, but sometimes brings the case to an unfavorable issue. In the inflammatory stage of caries of the joints, anchylosis is of frequent occurrence, which might have been

prevented by timely use of passive motion, and appropriate exercise.

Here the important question arises, when can passive motion be commenced, and to what extent may it be carried without producing injury? There is not a more practical point to be decided in the treatment, of which we have so little knowledge as, the proper time.

If the inflammation has gradually subsided, the swelling diminished, and the pain become much less, we may make an attempt at passive motion. The first time it will cause much pain, but if it soon subsides, and no unfavorable symptoms are developed, another trial should be made, always increasing the motion daily. As soon as motion has been fairly established, more active exercise may be thought of, and if feasible, the patient removed to the country, to receive the benefit of pure air. We think if this treatment is carefully and perseveringly carried out, it may be productive of beneficial and satisfactory results. When an abscess has formed it should not be opened at once, as we frequently succeed, under favorable circumstances and proper treatment, in inducing absorption of pus. Sometimes retrogressive changes occur, without any treatment, even after the formation of pus, and before the abscess has opened. A knowledge of these facts should make us extremely cautious as to their artificial evacuation. However, we should not wait too long, if after the lapse of a reasonable length of time the abscess shows signs of pointing, or that we have reason to believe that the pus will burrow into the neighboring tissue, the abscess should be opened. When it has been decided upon to evacuate the pus, deep incision must be made down to the bone, if not too deep-seated.

Much diversity of opinion prevails among some of the most eminent surgeons in Europe and this country, in regard to opening large abscesses. The generally accepted opinion is, that pent-up pus will do positive injury, and that as soon as fluctuation is evident, the pus should be let out. We know from experience, that when large accumulations of pus are left to open themselves, the destruction of tissue is greater than when opened, while Billroth and Pirogoff believe that harm will be done, especially

in such cases in which the bone cannot be operated upon afterward.

When all of our efforts to check the progress of the disease fail, we must resort to more active measures. The removal of the diseased portion of bone must next be effected, and for this purpose various means have been employed. The stronger escharotics have been used to effect the destruction of bone, but their action cannot always be limited to the diseased surface, and they are very uncertain in their results. We might except the use of sulphuric acid, the application of which has proved more successful.

Some cases have recently been published in which its employment was productive of satisfactory results. The acid is at first diluted with an equal quantity of water, and then more and more nearly pure, it is pencilled upon the diseased surface. It soon dissolves portions of the bone, which are soon cast off. The application is repeated until a healthy granulating surface is reached. The actual cautery, though not much used at the present time, is more effectual and rapid in its destruction than the sulphuric acid.

Its application, like that of sulphuric acid, is restricted to cases which are not extensive, and where the bone can be easily reached. After carefully exposing the bone, and protecting the soft parts against the heat, the iron is applied at a white heat, until its full effects are produced.

The eschar is cast off in from three to seven days, when the application may be repeated, if necessary.

A more modern method of removing the diseased bone, is the scraping or gouging process. This is usually confined to tarsal and carpal bones, or the articular extremities of long bones. When all of the diseased structure has been removed, the cavity should be thoroughly cleansed, in order to remove all irritating substances which might interfere with the reparative process. Hemorrhage which often attends these operations is usually controlled by the ligation of the arteries; if this be impracticable, a plug soaked in a solution of persulphate of iron, and stuffed into the cavity, will answer the purpose. The bleeding having been arrested, the plug is removed, and the wound is loosely

closed by suture, a bandage applied, and the limb placed in the most favorable position to allow a free escape of the discharge.

Exsection of the diseased portion or the whole of the bone often becomes necessary, when the disease cannot be controlled by the described means. The operation ranks as one of the greatest triumphs of conservative surgery, and when we consider the very gratifying results obtained by it, there can be no doubt of its great value and importance.

The operation consists in removing the diseased bone, and retaining the soft tissue as much as possible, in order that the usefulness of the limb may be preserved. It is most frequently performed in caries of the joints, and then both the opposing surfaces will often require removal. The success of the procedure depends upon the amount removed; while it is necessary to remove all of the diseased bone, we must not forget the rule to save all that can be saved.

Recently two modifications of this operation have been brought forward respectively by M. Sedillot and M. Ollier. The former contends that the only safe and proper method of exsection, is to remove all of the diseased bone by the gouge, except a mere shell, which remains attached to the periosteum. His reasons for thus operating are, that a more complete bone can be regenerated, the shell maintaining the original shape and size of the bone, thereby preventing deformity, and that the periosteum cannot be relied upon to fully reproduce the removed bone. This operation is really not one of exsection; there is no bone removed in its continuity or its extremity, much less in its totality.

The main objection to M. Sedillot's operation is, the unnecessary scooping out, and the extensive exposure of the interior of the bone, which is extremely apt to be followed by pyæmia. However, he has published a number of cases successfully treated, and without any such complication.

M. Ollier, who has given much attention to diseases of bones and their reproduction, claims, that the best method of exsection is the subperiosteal; which consists in removing the bone, first denuding it of its periosteal covering. The value of this method has been abundantly proved in Europe and this country, while M. Sedillot's advocates are principally confined to Europe. No

doubt both these methods possess valuable suggestions, and neither can claim exclusive preference.

Whichever operation is preferred, great care must be taken not to disturb the tendinous insertions of the muscles, so as not to impair the muscular action of the joint.

In exsection of the lower extremities, anchylosis is always most desirable, while in the upper extremities some motion is sought for. To obtain these different results absolute rest is necessary during the whole time of cure in one, and passive motion, judiciously conducted in the other, will be required.

When the disease is very extensive, and all other means have proved unsuccessful, amputation is the only resource, and it may be the means of saving the life of the patient.

The internal treatment mostly to be relied on for the cure of caries, depends upon the selection of the appropriate remedies in each case. It is somewhat difficult to give the particular indications for each medicine, but the following have proved most beneficial: Asaf., Aur., Baryta carb., Bell., Calc. carb., Calc. phos., Carbo veg., Dulc., Euphorb., Fluor. acid, Hepar sulph., Kali hydr., Lach., Lyc., Mang., Merc., Mezer., Natr. mur., Nit. acid, Phos., Phos. acid, Phyto., Puls., Rhus tox., Ruta grav., Rhod., Sepia, Silicea, Staph. and Sulphur.

Asafœtida.—Ostitis; caries in scrofulous subjects; after the abuse of mercury; highly inflamed edges of the ulcer, with great sensitiveness; pus very thin, profuse, and very offensive.

Belladonna.—In inflammation of joints, with erysipelatous swelling; stinging, burning pains; caries of the palate and frontal bones; caries of the vertebræ, especially in children.

Calcarea carb.—Is especially useful in scrofulous children, in ostitis and caries.

Calcarea phos.—In caries and after operations on bones, to promote the regenerative process.

Fluoric acid.—Possesses great influence in caries of the facial bones and the forearm.

Hepar sulph.—In scrofulous subjects; after the abuse of mercury; after the formation of pus, and when it presents a very unhealthy appearance.

Mercurius.—In periostitis and ostitis, with the prominent nightly aggravations; pain as if the bone were broken.

Manganum.—In periostitis and caries, especially in the left hip and tibia; worse when sitting; children will not put the foot on the floor for fear of the pain.

Mezereum.—In periostitis; after rheumatism; most violent pains, as if the periosteum were being scraped from the bone, especially of the tibia.

Natrum mur.—Especially suitable in caries of the spine before suppuration has set in.

Nitric acid.—After the abuse of mercury and in syphilitic patients.

Phosphorus.—In caries of the cranium, bones of the face, and in caries of the vertebræ, with violent tearing and boring pains.

Phosphoric acid.—Ostitis after injury of the periosteum; burning, smarting sensation as if the bone were scraped by a knife.

Phytolacca.—In caries of syphilitic patients, especially if the tibia is affected.

Silicea.—In all stages of caries it is, like Calc. carb., one of the principal remedies; fistulous openings, which bleed easily; pus thin and rather profuse; discharge of bony fragments.

LVIII.

NECROSIS.

By L. H. Willard, M.D., Alleghany, Pa.

While caries destroys by ulceration, necrosis works by death, either of a part or of the whole, bringing destruction upon all the bone-tissue, cancellated as well as compact; and thus, in its power of dissolution, resembles mortification. There is, however, this all-important point of difference, viz., that while in mortification no regeneration can by any possibility take place, in necrosis the periosteum enables the system to restore the part destroyed, to a greater or less extent, thus obviating that which otherwise would result in lamentable deformity.

The periosteum is the shield of the bone, palliating all its injuries, supplying it with nourishment, and transmitting through the general circulation all effete material; being in fact the maternal parent (so to speak) of the entire bony structure. Hence, in considering carefully this disease, our first object shall be to examine it in its relation to, or effect upon, the periosteum. When this membrane is injured or inflamed, congestion ensues, followed by a separation between the bone itself and its covering; circulation is thus destroyed, and the parts immediately beneath, receiving no nutriment, soon perish, producing an exfoliation, such as we often see in injuries of the ankle, tibia, and other exposed bones.

Again, the bones themselves are frequently the cause of disease, their character, density and unyielding nature contributing toward their self-destruction. When the tissues forming the

Haversian canals and lacunæ become congested, the membranes enlarge, there no longer is power to transmit the current of blood, which, on account of irritation and inflammation, has filled the vessels; the bony walls admit of no expansion, hence the vitalizing forces of the very bone itself are in a state of strangulation, which, if life is to be continued (in the part), must be relieved, or the inevitable result will be necrosis.

Thus we see that inflammation is one of the principal elements in this disease, the destroying power of which is always in proportion to the nature of the inflammation; the more acute the more destructive.

As already shown, should the vessels be merely clogged, not strangulated, and still capable of receiving and transmitting a certain amount of material, the recuperative power of the capillaries may be able to maintain vitality until the equilibrium of the circulation be once more restored. The cancellated structure (composed of numerous cells and vessels having space in which to expand, and thus accommodate themselves to changes and circumstances), is much more exempt from necrosis than is the compact tissue of the bony channels.

Upon setting in order the exciting or predisposing causes of necrosis (as deduced from the foregoing), we attribute to inflammation, whether from accident, exposure, or constitutional derangement, the grand initial stage in this disease.

In considering necrosis in regard to its effect upon the different bones, we find the long bones, those most exposed to extremes of heat and cold and to accident, most liable to this disease. The tibia and femur, for example, are by reason of their positions liable to accidental injury, as well as susceptible to all climatic changes. By way of illustration, we have mentioned several causes, any of which may result in necrosis. For the *first* cause we must seek deeper. Upon examination we cannot fail to notice, that among persons who suffer from necrosis there exists a certain dyscrasia of system, which seems to require only a slight secondary or existing cause for the development of this disease.

The familiar history of syphilis and scrofula, with their attendant ills, serve only too painfully to exemplify their mortal

antagonism to bones. This constitutional taint we believe to be the most unequivocal source of necrosis.

Another and not unusual cause of this malady, is sudden exposure to extremes of heat and cold. Alternation between congestion and depression goes on, until the functions of the periosteum for supplying nourishment are entirely destroyed, when as a natural consequence necrosis results. The lives of fishermen, and of East India natives who engage in coral hunting, illustrate this case. The latter wade deep in the water, where, by making strenuous exertions with their feet, they break off the coral; in so doing they continue until, to use their own expression, they "are completely done out;" after which, in taking rest they expose their naked limbs to the hot sun till ready to work again. Thus those exfoliations of the tibia so common in warm climates are produced. Here let me say, exposure to cold is as disastrous in its effects as is extreme heat, and both are fruitful causes of necrosis.

Various are the accidents which may produce inflammation which eventually destroys the bone: for example, blows on the tibia, fracturing it in more than one place, thus cutting off the medullary supply, causing inflammation and consequently separation of the periosteum from the bone, insuring in this way its death.

In compound fractures, where through extensive suppuration the bone becomes exposed to the air, we often find a small portion of it necrosed, but invariably on account of, and in proportion to, the dyscrasia of the system.

In speaking of the counteracting influence of Mercury and Phosphorus, our favorite "similia similibus" doctrine is forcibly brought to mind, and corroborated by Dr. Heyfelder, of Nuremberg, who calls attention to a peculiar form of necrosis of the lower jaw, prevalent among those engaged in the manufacture of matches. Exactly the manner in which, after being absorbed into the system, the phosphorous acid acts, no one can decide; but those operatives having unsound or carious teeth, or exposed gums (teeth having been extracted), are sure to suffer, the phosphorus coming in contact with the bony tissues, working their destruction. For what reason the periosteum should thus suffer and not the Schneiderian membrane, a part as much ex-

posed and apparently as liable to injury, is difficult to explain, but that such is the case the facts bear witness.

Of all diseases productive of necrosis, syphilis stands pre-eminent, selecting as its stronghold the most conspicuous portions of the bony structure, rendering its victims sadly disfigured. It generally works with rapidity, producing death in the nasal, ethmoid and cranial bones, in such a manner that the constitution, already enfeebled by this destroyer, no longer possesses recuperative power, and the periosteum, deprived of its normal healthy functions, can no longer communicate to the degenerate bones their wonted vitality. Thus this living death goes on, until arrested by medical or surgical means, when the necrosis depending upon the poisoned condition of the system ceases.

After fever, especially among the scrofulous, we often find a low condition of the system, where a chill from bathing or exposure of any kind becomes the exciting cause of necrosis. The shaft of one of the long bones, for instance, the tibia or humerus, may receive an injury or chill, followed by inflammation of the part, resulting in the destruction of the whole bone; though in cases where the patient is young, this is generally rapidly replaced by new formation. Mistakes are sometimes made in confounding necrosis with fever, or rather in not distinguishing the one from the other. Necrosis with its accompanying symptoms of fever and chill in alternation, may easily be mistaken for a low form of fever, and the true and important cause be overlooked, until the suppuration, the convincing proof of the real cause, makes its way to the surface, and by its prominence and pain, renders necessary surgical aid, and plainly shows the true nature of the disease. After this, the rapid disappearing of the fever shows it to have been but the effect, not the cause of the disorder. We do not doubt that from certain forms of long-continued low fever, a vitiated state of the system is brought about, requiring only a slight sore or congestion in a dependent part for the development of necrosis. Such cases fortunately are exceptional, and, we feel confident, only illustrative of constitutional taint as already mentioned.

Once more, as regards the seat of necrosis, at times it affects the whole bony system, more or less, according to the supply of

vitalized matter it finds to work upon. Any portion from which nourishment is withdrawn is of course deprived of life. In accordance with most authorities, and our own observation, the long bones are generally affected as previously stated. M. Ollier has discovered that that portion of the skeleton having the greatest power of growth and development (for example, where the tibia and femur come together, forming the knee-joint) is also most susceptible to disease.

The pathology of necrosis has already been amply illustrated when speaking of regeneration. It will not again be necessary to revert to it, but merely to call attention to the difference in its manner of separation from that which takes place in caries.

In the latter, the part affected is either thrown off in pus or in small calcareous particles, or, as in many cases, the decayed portion remains, and by contamination changes the parts with which it comes in contact from a healthy to a diseased condition; whereas in the former (necrosis), circulation ceases, and the dead portion of the bone can take no action in the vital changes occurring all about it. At first that part of the bone which is dead or necrosed changes in color, though so slight is the alteration, that in the sequestrum at a more advanced stage of the disease it is scarcely perceptible, unless it should be exposed to the air, when discoloration usually takes place.

Separation of the dead from the living bone is accomplished through the absorption of the dead particles by the vessels of the living tissues. The space between the dead and living bone is not empty, but filled with soft granulations, in the midst of which is the sequestrum, so guarded that it cannot come in injurious contact with the living bone-tissues.

The act of separation, beginning at the surface, goes on until the dead bone may be found lying by itself, entirely separated from the new formation, nature thus beautifully finishing her wonderful work. And all the time this process of separation is going on, she, with her forces, is at work, strengthening and supporting the parts most in need of her strength and sustenance.

Suppuration and separation commence simultaneously between the bone and periosteum. After which, that is when the periosteum yields to the pressure so that the matter can escape from

the compact or rigid to the more elastic tissues, the pain grows less, and a doughy or œdematous condition of the limb, or, near the surface, a prominence, makes its appearance, which upon being lanced will discharge a thick creamy substance. After this the fever, at first so noticeable a feature in the case, becomes less violent, and all the first symptoms more favorable.

As the swelling decreases, we will sometimes find a deeper and more unyielding enlargement, caused by the formation of the involucrum embracing the sequestrum. This being lanced (as is generally expedient), will continue to discharge for many weeks, the enfeebled vessels and tissues working hard, carrying off through patulous orifices the effete matter, never ceasing until the work of removing the sequestrum is fully accomplished.

TREATMENT OF NECROSIS.—In considering the treatment of necrosis, we would recommend that in all cases strict attention be paid to the constitutional derangements manifest, and a remedy administered which the totality of symptoms seems to require. We would not here be understood to in any way refrain from making all local examinations thorough and minute, in order to discover the true seat of the disease, its diagnosis and prognosis, but, having as nearly as possible satisfied ourselves in regard to its nature and origin, prescribe then according to true homœopathic laws.

When the presence of pus is suspected, use the knife, instead of waiting for nature; let the incisions be free, and in the most dependent part, in order that the matter may have clear exit, for pus if confined will dissect for itself, and in its course endanger both vessels and joints. This, together with the proper remedies to counteract inflammation, and, when necessary, a cataplasm, and paying strict attention to hygienic rules, will constitute the treatment of the first stage.

The remedies to which we refer, those which have been found most effective, are:

Aconite.—This remedy possesses a universally acknowledged power in allaying inflammation, especially where there is high fever, coated tongue, and there is no positive indication of the seat of the disease.

Belladonna.—When there is an œdematous condition of the

limb, with an erysipelatous appearance, delirium, and pain in the part affected.

Bryonia.—This remedy may be more strongly indicated if the disease is brought on by cold, characterized by high pulse; great thirst for large quantities of water; cannot bear the least motion, especially of the joints which are painful and swollen.

Rhus tox.—When the disease occurs in consequence of getting wet, or from exposure, Rhus tox. is a great remedy to control periosteal inflammation. The patient is stiff and sore, all parts of the body are affected, and the constant restlessness is augmented by remaining quiet, and relief occurs when making some movement.

Dulcamara is also used when the disease results from getting wet, but there are none of the nervous symptoms indicating Rhus tox.

Mercurius vivus.—For pains in the bones, becoming worse at night; the joints of hip and knee are mostly affected; extremely sensitive to cold; constant chilliness which is not relieved by warmth; perspiration giving no relief.

Mezereum.—This remedy has proved very serviceable in pains affecting the malar bones, when of a sharp, tearing character. Pains in all the long bones, especially the tibia, aggravated by touch or motion, better when in the open air. It is also useful in all painful enlargements of the tibia, brought about by accident or disease; many cases occurring in my practice having been relieved by this remedy when necrosis or caries seemed imminent. The following is an instance:

Mr. B., æt. 35 years. Some three months before coming to me for treatment he received a severe blow on the tibia, which produced a marked prominence; after a few days, intense pain ensued, which was only partially relieved by blisters, of which his former attendant had made use.

He insisted upon having an incision made through the protuberance as a means of relief. His plan was feasible enough, but recollecting the symptoms of Mezereum, I decided upon giving that remedy, with the effect of entirely relieving the pain, and he afterwards told me the prominence gradually disappeared, so that in two months it was scarcely noticeable.

Phytolacca.—For rheumatic pains in long bones, most severe at night.

Among other remedies may be mentioned Nitric acid, Natrum sulph., Ruta graveolens, and Hamamelis. These are some of the most useful remedies in what may be properly called the first stage; we have found them both serviceable and curative. In several cases I have been, by their use, enabled to correct a diseased condition, and thus arrest that which otherwise must have resulted in necrosis.

In the *second stage* of this disease we find the fever has subsided, the pain has been relieved by the removal of pus, and nature now begins the work of regeneration. This stage will be to the surgeon generally an inactive one, though we must use all our efforts to correct any vicious state of the system, by diet and medicines, and on no account attempt the removal of sequestrum until a part of this process has been completed.

By giving the remedies as indicated, we will not only correct a disordered state of the system, but help to liberate and separate the dead from the living tissues, and contribute largely toward the formation of new bone.

Having made our examinations carefully from time to time, and finding the sequestrum ready for removal, we now arrive at the third and last stage of the disease.

We have omitted in the foregoing to give any surgical treatment other than using the lance to permit the evacuation of pus, but will, in this the last stage, notice a few operations necessary both for the prevention and cure of this disease.

Take, for example, a whitlow, when the pain is of a lancinating character, and indicates by the absence of swelling, disease of either the bone or periosteum. In such a case I would unhesitatingly use the knife for relief, for, from experiments on the periosteum, it has conclusively been shown that incision of that membrane may be made without interfering with or destroying its vitality, and by doing so we prevent the pus from injuriously acting upon the phalanges (if the periosteum is affected) and destroying those bones.

Here we may mention that remedies are always to be used,

and their controlling influence made to act in unison with the operation for the cure of this simple form of necrosis.

In all those painful enlargements of bones produced by blows or bruises, where the pain and inflammation continue after we have tried all our remedies without avail, to prevent any further mischief it is my rule to cut down through the periosteum to the bone, and apply a poultice, and generally with happy results.

Just so long as the congestion of the vessels of the periosteum remains, there will be pain and swelling. This operation of giving the vessels a chance to relieve themselves, eradicates the evil, and we avoid an exfoliation. Some three cases have come under my care lately where the pains were very severe, and the remedies not acting, I operated, and in each there was in a short time marked improvement. One of these I will give as an illustration.

Michael Woods, æt. 40, two years before coming to me received a blow on the tibia. He experienced at the time some pain, and at intervals of a few months the suffering became very severe, so that to relieve it he applied blisters. I tried different remedies, Mezereum especially, which relieved for a short time, when the pain would return. I proposed to incise this marked prominence, and he consented. The cut was made through to the bone, about two inches in length; the structures through which the knife passed were not congested, in fact there was rather an opposite condition, but the relief was immediate. The after-treatment consisted of a poultice to the part, and Sulphur 2ᵉ internally, at night. The swelling disappeared, and now, six months afterwards, he reports having no pain.

We feel confident that there is no danger in making these incisions. The danger lies in allowing a chronic state of inflammation to exist, which will surely in the future produce necrosis.

In the last stage of this disease, when the sequestrum has formed, immediate operation becomes necessary. This in itself is simple, and requires no comment here. But when waiting for the sequestrum to be thoroughly loosened and ready for removal, particular attention should be given to the character of pain, if any, which the patient suffers. Should it be sharp and

jagging, having its seat in near proximity to a joint or large vessels, so that by reason of its position sharp spiculæ may penetrate the joint, producing inflammation, which might make a useless limb, or puncture a large artery, and render amputation necessary, we must cut down and remove that portion which thus endangers life or limb. On the other hand, we must consider the nature of the involucral tissue, which on being once interfered with does not regain its wonted vitality, so that in removing the irritating portions of the sequestrum, we should avoid as much as possible undue breaking up of this substance.

In performing the operation for the removal of spiculæ, serious as are the risks we run, the risks and the attendant pain are more than compensated for by the relief afforded. We cannot give any cases occurring in our own practice of this nature, but Dr. Markoe relates several, which are to be found in his work on the Diseases of Bones.

There is another class of cases which I desire calling attention to, where the involucral tissue is not formed, and does not show any sign of forming before we operate. These are cases where from a blow or sudden attack of acute disease the bone at once becomes dead. In the former the bone may be broken in two places, thus cutting off the medullary supply, and with the accompanying inflammation producing death of the part. In diseases where ostitis produces immediate death, the bone must be removed as soon as the periosteum is separated, even before any of the involucral tissue is formed, and where to all appearances the periosteum has been destroyed. A case coming under my notice at the Homœopathic Hospital of Pittsburg, shows this very clearly. A boy, æt. 9, was sent to the hospital during one of my terms of service, although I was absent at that particular time. Dr. McClelland detected the broken bone and its entire separation from the periosteum. He had then, when brought to the hospital, been suffering for two months from a severe blow on the tibia, the bone being loose. Although no new formation had taken place, we decided to operate, and assisted by Drs. McClelland, Burgher, Rousseau and Seip, I operated by making an incision from one inch below the knee, along the spine of the tibia, to within an inch of the ankle, then removed the

broken tibia and sawed off the ends of the remaining bone near its articulation at the knee, and also near the ankle. This was on the 14th of January, 1868. The incisions thus made were approximated by sutures and adhesive strips, the leg was then put in a fracture-box, with bran dressing, and calendula lotion applied. On January 18th the boy had fully recovered from the shock of the operation, and the pus was growing less in quantity. By January 25th the discharge had ceased to a great extent, there was no pain, and the boy slept well at night. Calcarea phos.[30] was now given three times a day.

On January 30th, a hard and inelastic substance was felt extending along the track of the removed tibia, which has since proved itself to be bone.

The boy continued to improve, so that in three months he could bear his weight upon the limb, and after a section had been made of the tendo Achillis, which had become somewhat contracted whilst lying in bed, he could then, six months after the operation, walk as well as ever, and now, some four years afterwards, the tibia, although irregular in shape, is as strong as that of the other side.

Another case, that of Miss B., æt. 10, will also illustrate the same principle, that it is best to remove all matter possible when bones are decayed, and it also shows, in a beautiful manner, the regeneration of bone, as illustrated by Dr. McClelland in his paper. In this case, the little girl received a blow upon the humerus while playing with her brother. She had just recovered from an attack of measles, and was, I think, of a strumous habit. Some three hours after getting hurt she was seized with chilliness, followed by intense pain of the arm, near the place where she had been struck. This pain increased in severity and continued for three days, the arm becoming hot and presenting an erysipelatous appearance. A prominence was then observed near the shoulder, which was lanced, a copious discharge of pus followed, when the pain was in part relieved. The discharge continuing, we decided to operate, as the probe revealed decayed bone, and the patient was sinking from the abundant flow of pus. Assisted by Drs. Hofmann and Rousseau, we etherized our patient, and made an incision along the deltoid muscle, com-

mencing within an inch of the shoulder, and extending down about three inches in length. We found the bone in a pasty mass, from the anatomical neck to a short distance below the insertion of the deltoid muscle. With the bone nippers we cut off all little spiculæ attached to the head, leaving it in the joint, as the disease had not affected it. The humerus we sawed off one inch below the insertion of the deltoid, then cleaned the wound and put the arm in a tin splint. The patient was given Calcarea phos.[30] twice a day. She made a rapid recovery in two weeks. New bony material was deposited, and in consequence of the pressure by the splints on the condyles we removed them, and merely applied a bandage. In a short time the arm was strong, but the remaining portion of the shaft of the humerus came away in eighteen months, in the form of a sequestrum, making its appearance at the wound made during the operation. It should have been said that the whole shaft had become necrosed, leaving the epiphyses sound. This patient can now use her arm; there is some stiffness at the elbow-joint, but the motion at the shoulder is perfect, and she is able to lift the arm to the head, the same as if the insertion of the deltoid had not been disturbed.

In thinking over these cases, I would say in conclusion, that the power to regenerate bony tissue can be attributed greatly to the action of remedies, for as soon as Calcarea phos. was administered in the above cases, bony deposit made its appearance, while for a considerable time previous, nature had made no effort toward the new formation of bone.

LIX.

THE REGENERATION OF BONE.

By J. H. McClelland, M.D., Pittsburg, Pa.

As an introduction to the study of this very interesting subject, which we regret is so imperfectly presented, it is proposed to describe the structure and development of bone as occurring in the primary formation; hoping thereby to induce a clearer understanding of secondary bone formation, or the regeneration of bone.

In preparing this portion of the paper we have taken advantage of the labors, among others, of Tomes and De Morgan, Rokitansky, Robin, Kölliker, Sharpey and Quain, Virchow, Müller, and lastly, from A. Rolletts's exhaustive researches, as given in Stricker's recent invaluable work.

In pursuance of this plan the facts have been briefly brought together, and where best suited, the same language adopted.

Structure of Bone.—Bone is a hard, yet tough and elastic structure, of a pinkish-white color, and composed of earthy and animal matters in well-known proportions. Notwithstanding its unyielding nature, it is abundantly supplied with nerves, arteries, veins and lymphatics, even to its ultimate structure, and these vessels carry nourishment, and return effete matter to the circulation.

The bony tissue is everywhere porous, although one portion is compact, while the other is cancellated.

True osseous tissue consists of a dense, fundamental substance, forming the matrix, which is penetrated by vascular canals and

numerous minute spaces, the lacunæ, having minute hollow processes, the canaliculi.

The vascular canals of bone, or the Haversian canals, as they are called, are very small tubules, which exist universally in the compact substance, forming a capillary-like network in it. The matrix of bone is lamellar, the lamellæ being arranged in two ways, first parallel with the external and internal surface of the bone, and secondly in concentric layers around the Haversian canals, constituting as it were their walls.

In the cancellated portion of bone these lamellæ are joined together by slender spiculæ of bone, in a reticulated manner, producing an open structure, which in the fresh state is filled with marrow or bloodvessels, thus combining considerable strength with little weight. Concerning the bone cavities, the microscopic lacunæ and canaliculi, but little need be said, save that they with the Haversian systems, which are found in all bones, allow of the transmission of the nutrient fluid for the nourishment of the bone.

The lacunæ present some variety of shape, but for the most part are elliptical, flattened cavities, which lie in nearly the same direction as the lamellæ surrounding the Haversian canals, and between which they are found with their broad sides parallel to the lamellæ.

From the borders and surfaces of the lacunæ a great number of microscopic canals are given off, which further branch and penetrate the osseous substance in all directions. These minute tubules are the canaliculi, and proceed parallel to the Haversian canals, the major portion, however, passing directly through the lamellæ and communicating with those from other ranges of lacunæ and the Haversian canals.

Thus we see that the whole osseous substance, dense as it may be, is penetrated by a connected system of cavities and canaliculi, which allows the transmission of the nutritive juices which have been carried by the vessels to its densest portions.

Development of Bone.—Evidences of the future osseous skeleton are found early in embryonic life, in the form of soft cellular matter or temporary cartilages, which assume the shape of the future bony fabric. Almost the entire bony skeleton is

developed from these cartilages, which, in the aggregate, form the cartilaginous skeleton; the rest being formed in a soft blastema between membranes, the former being denominated *primary bones*, and the latter *secondary bones*. This grouping of bones, with respect to development, has been denied by many, but if we consider that the difference is not in the *process* of osteogenesis, which is the same in all, but in the *place* of development, with respect to the presence or absence of cartilage, we see that the grouping is not an unhappy one.

The skeletal cartilages are developed like all true cartilages, from a deposit of cartilage-corpuscles or cells, between which a hyaline substance is deposited, pushing the original cells farther apart, new cells being produced from the germs in the hyaline, while at the same time the original cells have multiplied by bipartite and tripartite subdivisions; the growth of the cartilage being thus secured by the reduplication of the cells and the increase of the intercellular substance.

Little is known respecting the growth of permanent cartilage in length and breadth. It is hardly possible to admit that the isolated cell formation in the interior of a large cartilaginous mass can cause an increase in its volume. Whether a deposition of new cartilage upon the old is effected by the perichondrium, as some authors aver, is a question which has as yet not been satisfactorily settled.

The primary cartilaginous skeleton is not as complete as the osseous, presenting some parts which either remain in a cartilaginous state or are subsequently entirely removed.

In the cartilaginous cranium the vault is entirely wanting, and almost all the lateral parietes as well as nearly all of what afterwards becomes the facial bones. The parts not formed of cartilage are closed by a fibrous membrane, so that the cranium is nevertheless complete. It is in this membrane that the so-called *secondary* bones are afterwards developed.

The osteogenic process of primary bones as exhibited in cartilage, and known as the *intracartilaginous*, is by far the most general. In the long bones the deposit begins in the middle of the shaft and extends to the extremities, which remain cartilaginous for a longer time, but finally ossify from separate centres.

As the cartilage takes form it is covered by a delicate, nutrient membrane, formed of connective tissue, the perichondrium, which is well supplied with vessels, only allowing, however, the passage of white corpuscles of the blood and serum, while no vessels are found in cartilage until ossification commences.

In the points or centres of ossification from which the osteogenic process proceeds, there first appear small tubes (cartilage canals), filled with a small cellular mass, into which the bloodvessels coming from the perichondrium may be traced. These tubules or canals lead to those parts where, in consequence of the deposition of the salts of lime in the matrix of the cartilage, the white appearance and firm consistence of bone are first observable, and form large irregularly dilated spaces, which are filled with medullary matter and bloodvessels. These spots give support and firmness to the remaining cartilage, which has been partially absorbed, and is well impregnated with granular deposits of lime. In the immediate vicinity of these spots the cartilage appears transparent, and made up of large clear cells, with but a small portion of matrix between.

The calcified portion is often found extending beyond the limits of the medullary spaces, and terminates in fine processes in the larger trabeculæ of the matrix of the yet unpenetrated cartilage. The cells at the limits of the latter apparently occupy the extremities of the calcified tissue, and there first come in contact with the medulla. Such are the changes which take place in the cartilage prior to bone formation. The medullary substance must first be formed before osseous tissue can be developed, for it is upon the surface of the medulla, which has been superimposed upon the calcified cartilage, the development begins.

In the cavities of the calcified cartilage, a new soft material made up of cells is observed, those cells occupying the interior being different from those more superficially situated. Coincidently with the change that occurs in the nature of the material occupying the interspaces of the calcified trabeculæ, a change of the constituent cells may be observed to take place into an outer and an inner layer.

The outer layer of granular cells, or osteoblastic layer, as it is called, constitutes the immediate precursor of true osseous tissue.

The latter occurs in the walls of the primary medullary cavities, at some distance from the margin of the cartilage, and when first seen constitutes a thin, lustrous, highly refractive lamella, in which the peculiar stellate form of the bone-corpuscles is already visible. Whenever the osseous tissue is formed, osteoblasts have previously been deposited in layers, as on the remains of the trabeculæ of the calcified cartilage, so at a later period the young bony tissue deposited on the surface of these, is again covered by a layer of osteoblasts separating it from the medulla.

We have thus related the processes that determine the increase in length of the long bones. Their increase in thickness is dependent upon deposits of new bone which are formed under the periosteum.

Before examining the process of bone deposit beneath the periosteum, it will be necessary to become acquainted with the structure of the periosteum itself. As the cartilage has become bone, the delicate membrane which we have seen covering the cartilage, the perichondrium, has become the periosteum. It is whitish-yellow, somewhat glistening and elastic. It invests every portion of the surface of bones, except where certain muscles and ligaments are inserted, and where the surface is covered by articular cartilage.

Its appearance and constitution varies, however, with its situation and connection with other tissues, being opaque, thick, and resembling tendinous structure in its glistening aspect where it immediately underlies the skin, or connected with fibrous structures, as ligaments, tendons, fasciæ, and dura mater. Or it is of a thin and transparent character where muscular fibres arise directly from it, and where the muscles nearly rest upon the bone, as on the external surface of the cranium, in the vertebral canal and in the orbit.

The periosteum also varies as to its connection with the bone, either merely in apposition, being *loosely attached by delicate vessels which penetrate the bone*, or being more firmly and intimately attached by tendinous filamentary processes and by larger vessels and nerves; the former occurring more generally when the periosteum is thin and the osseous tissue more compact, as in the shafts of the long bones; the latter when the periosteum is

thicker and the compact substance thinner, as in the short bones, palate, and base of the skull.

It consists of two layers which, though very closely connected, differ more or less in their intimate structure. The external layer consists of decussating fasciculi of connective tissue, white, fibrous, with here and there a few fat-cells, and is the principal seat of the true vessels and nerves, the internal layer being formed by the superposition of thick continuous networks of fine white elastic fibres. Nerves and vessels are found in this layer, but they appear to *merely pass through it*, being destined for the bone itself.

The examination of the periosteum of the embryo however reveals considerable difference between it and that of later life, particularly with reference to the internal layer. The internal layer of the periosteum in the embryo is differentiated from the external by its containing a large number of granular bodies imbedded in the meshes of a fine plexus, these granular bodies being small, roundish, nucleated cells, which give off a variable number of fine processes from their periphery, which join the reticulum. On the internal surface of this layer there is a third layer of the periosteum which contains granular cells, like the osteoblasts which have been already described, and which form an epithelial covering continuous with the periosteal investment of the bony trabeculæ. This cellular investment of the bony trabeculæ however is not continuous, for as the osteoblasts increase in size, the meshes of the reticulum also enlarge and project from the periosteum into the cartilage, becoming after a time separated from it. The osteoblasts thus form rings or arches, which are the rudimentary Haversian systems, and canals which are continuous from the openings left in the crowns of the arches thus formed. These rings or arches are invested on both the internal and external aspect with a layer of osteoblasts, the bone thus continuing to be deposited in lamellæ around these rings and arches.

The great medullary cavity in the adult, therefore, is formed by the reabsorption of a great part of the bone developed by the intracartilaginous process. It will be remembered, however, that the anatomical character of the periosteum of fully devel-

oped bone differs materially from that of the embryo, in having become as it were a mere carrier of vessels and nerves.

Intramembranous ossification differs but little from the processes already described, except in the absence of the cartilaginous basis. The parietal, frontal, squamous portions of the temporals, the expansion of the occipital and the facial bones, are ossified in membranes. The tissue in which these bones are developed resembles very much the second layer of the periosteum as seen in the embryo, or the young medulla within the rings of well-defined osteoblasts.

In this tissue there first appear at the point or points where ossification commences small, thin trabeculæ, which unite in a reticulated manner, and extend in a radiating direction, the spaces inclosed by these anastomosing trabeculæ being larger at the periphery than at the centre of ossification. As these trabeculæ extend from the centre they become thinner, and form finely pointed processes, which become calcified and converted into bone. These trabeculæ, before they become ossified, consist of numerous cells elongated with the long axis of the trabeculæ. These cells appear granular and enucleated, and closely resemble osteoblasts as found elsewhere. Between these cells fibres extend either singly or in bundles, forming a network which finally becomes ossified, each bony trabecula being invested on its surface with a layer of osteoblasts, which are succeeded by a second layer as the first becomes bone, and so on until the required thickness of bone is obtained.

We thus see in the three modes of osteogenesis described, that the variations met with gradually pass into one another, so that the osteogenic process in the primary formation of bone is to all intents and purposes the same in all, the osseous tissue, originating in an essentially similar neoplastic formation or osteogenous substance; and, moreover, that the connective-tissue-like deposit preceding the formation of bones in the different modes of development as just described, in all cases proceeds from the same germs.

As in the intracartilaginous mode of ossification, so also in the periosteal form, a continuous layer of osteoblasts may be

observed to constitute the immediate precursor of the formation of the osseous tissue.

REGENERATION OF BONE.—By this we understand that process by which bone is replaced after its removal by accident, design or disease.

By accident, as by gunshot or direct force.

By design, as by excision or entire removal.

By disease, as by caries or necrosis.

It was the intention of the writer to consider the variations occurring in each of these divisions, but for manifold reasons he will be compelled to offer only a general consideration of the subject.

The manner in which new bone is formed, and the sources from whence derived, have furnished occasion for a wide diversity of opinion; and it is not a little singular that the experiments and conclusions of later writers, Ollier and others, coincide in the main with those of the first observers, Du Hamel, Troja, and their contemporaries.

A great bone of contention has been the true function of the periosteum. It will be seen by what follows, that some attribute to the periosteum the sole power of osteogenesis, that it is in fact a fabricating organ; others divide the honors with the endosteum, the adjacent old bone, and the surrounding soft parts, giving of course the periosteum the chief share; others again deny in toto the agency of the periosteum in forming new bone, ascribing to it merely the function of carrying vessels and nerves to and from the bone. Lastly there are not wanting those who assert that the periosteum neither makes nor nourishes bone, but is simply a limiting organ. In order, therefore, to present these different views as clearly as may be in the limited space allotted to this paper, the observations and conclusions of those who have made this subject a special object of research will be offered.

As far back as 1737, Du Hamel published a treatise giving the results of a system of experiments, from which he came to the conclusion that the periosteum possessed the exclusive power of reproducing bone. He reasoned that bone was formed in concentric layers after the manner exhibited in the woody deposition beneath the bark of trees, reasoning from analogy. He

observed that bone when burned separated in layers, and that it exfoliated in thin plates when diseased. Further, that in animals fed alternately with madder and without, their bones exhibited alternate layers of red and white. If such was the case, he thought it quite reasonable to conclude that bone was deposited in layers, and if so, then from the periosteum.

This position was indorsed and further exemplified by Troja, in 1780. Among other experiments he produced necrosis by destroying the medullary substance, and the shell which subsequently formed he attributed to ossification of the periosteum. These experiments, oft repeated, seemed to him conclusive evidence of the osteogenic power of the periosteum.

John Bell, in his "Principles of Surgery" (new edition, 1826), relates a case where a bony cyst formed around a collection of blood which had separated the periosteum from the bone, showing that he recognized the periosteum as a bone producer.

Mr. Syme in a paper read before the Royal Society of Edinburgh, March 6th, 1835 ("Transactions," vol. xiv), proposes the question "Whether periosteum possesses the power of forming new osseous substance independently of any assistance from the bone itself." He gives the results of many experiments wherein bone was removed subperiosteally, with the effect of subsequent new bone formation. He also inserted tin-foil between the periosteum and the bone, with the effect of producing thin plates of new bone. From these results he returns affirmative answer to the question which he propounds.

Flourens follows in a paper before the Academie des Sciences in 1840, describing a most careful system of investigations. His conclusions may be summed up as follows: The destruction of bone is followed by the formation of a new medullary membrane. New bone is formed between the new medullary membrane and the periosteum. The new bone is deposited in a cartilaginous layer, deposited from the periosteum, but which cannot be separated from it. "Hence ossification is the transformation of periosteum into bone."

Coming down to a more recent date, we find M. Ollier, of Lyons, as an acknowledged leader in this field of investigation. His invaluable "Treatise on the Regeneration of Bone," we re-

gret to say, has been but partially rendered in the English, such portions as have been translated appearing in several of the leading periodicals of the day. A somewhat extended notice of Ollier's experiments will be given (not because they are all original), but as representing the large class who at this time accept the theory of periosteal osteogenesis.

With reference to the ability of the periosteum to produce bone, the following experiment was made. Dissecting a flap of periosteum from the surface of a bone, leaving it still attached, the free end was passed around the adjacent muscle, and brought close up to the end which remained attached to the bone, thus forming a ring of periosteum; to prevent retraction it was fixed to the skin by sutures and the wound closed.

This experiment was performed on the tibia of a young rabbit and resulted as follows: Slight swelling succeeded the operation; within a week the periosteal flap was felt to have increased in size and consistence, and within a fortnight had already hardened. In six weeks the animal was killed; on examination it was found that the fibrous ring had become a bony one, attached at one end of the tibia and free at the other. The new bone looked normal, it was surrounded by periosteum, and had a smooth and compact surface. On section the interior looked as if it were becoming hollowed out. The microscope revealed the ordinary characters of bone.

Ollier's further experiments prove, as might be expected, that the periosteum of different bones and different parts of the same bone do not possess an equal ossific power, that taken from the long bones, and especially near the epiphyses, possessing this power to the greatest degree. This power of reproduction by periosteum was put to the extreme test by Ollier, by removing whole bones after having first separated the periosteum and its attachments, leaving the muscles and adjacent tissues intact. Tolerably complete regeneration was secured in many of these cases, but no reproduction occurred when the periosteum was removed with the bone.

As pertaining to the subject of resection of joints, Ollier's experiments were extremely important and gratifying. He demonstrates the importance of preserving the periosteum, liga-

ments, and adjacent parts intact; and just in proportion as this is done will the new joints be produced. In some cases the condyles, processes and fossæ were reproduced with wonderful distinctness.

In conclusion, we may state as some of Ollier's most important deductions, the following: First, that the periosteum is the great source of reproduction of bone under all ordinary circumstances. Second, that the periosteum presents two layers, an inner and an outer, of which the inner alone is endowed with the bone-producing power. Third, that the medulla is not under ordinary circumstances disposed to the formation of new bone, but that it is, under conditions of irritation, capable, to a certain extent, of such production, but always in a much inferior degree to the periosteum. Fourth, that the bone-substance itself may also give rise to a growth of new bone, but that its powers are much more limited than those of the medulla. Fifth, that though in certain exceptional cases the surrounding soft parts can accomplish partial bony reproduction, yet, practically speaking, such reproduction is not to be expected, when the whole, or a portion of a bone, with its periosteum, is removed.

Ollier's position has been ably sustained by Langenbeck and Huetor, of Berlin, whose operations in connection with the reproduction of the elbow-joint (wherein the condyles and olecranon have been reproduced) are well known; and also by Dr. Stokes, of Belfast, whose experiments afford striking illustrations of the osteogenetic properties of the periosteum.

M. Obert, at the Medical Congress assembled at Lyons, France, in 1864, reported a brilliant subperiosteal operation in the person of a young man affected with caries, which occupied the whole epiphysis of the left tibia, together with condensing ostitis occupying a little more than the lower third of the diaphysis. Separating the periosteum carefully, he removed all of the diseased bone and disarticulated the tibia at its lower extremity. Four years have elapsed since the operation, and the patient now possesses a tibia entirely regenerated, of the same form and volume as before.—*Lancet*, 1865.

In our own country the most practical and successful laborer in this field of investigation has been Prof. James R. Wood, of

New York City. He is a firm believer in subperiosteal resection. In the *New York Medical Record*, of August 15th, 1867, p. 269, are reported a number of cases.

In one case of subperiosteal resection for necrosed rib, in a woman who eighteen months afterwards died of phthisis, on dissection, it was found that the continuity of the bone had been re-established, the regeneration being complete.

In another case, a portion of the superior maxillary and the whole of the inferior maxillary were reproduced.

In still others reported by him, a removed tibia has been reproduced, also the clavicle and patella.

Since reporting these cases, Prof. Wood has reported the reproduction of the entire femur, for the third time in the same person, he having in his possession the three specimens complete.

Dr. George McClellan also reports a case of reproduction of the lower jaw, after necrosis and removal.—*McClellan's Surgery*, p. 357.

Prof. S. D. Gross gives the results of his experience ("*System of Surgery*," vol. i, p. 813) in the following language: "The perfection of the new bone will generally be in proportion to the integrity and activity of the periosteum. When this membrane has suffered much during the inflammation which precedes and accompanies the necrosis, the reproductive process, or new osseous epigenesis, is tedious and difficult, and often extremely inadequate. The part which the periosteum plays in the development of the new bone is well shown in the formation of cloacæ, which, as already stated, is clearly dependent upon the partial destruction of that membrane." Dr. Gross, however, admits that when the membrane has perished along with the bone, new bone will be formed by the surrounding structures, although imperfectly.

Prof. E. C. Franklin ("*Surgery*," vol. i, p. 799) holds about the same views as expressed above. He says: "That the periosteum takes the principal share in the reproduction is evident from the fact that when it is deficient or has been destroyed, apertures (cloacæ) are left in the case of new bone."

Markoe ("*Diseases of Bones*," p. 134) indorses the opinions of

Ollier, and adopts them without entering further into the merits of the subject.

The citations given above admit of but one construction, and that is in favor of periosteal osteogenesis; that new bone is really fabricated by periosteum. Ollier and others do not attribute this power solely to the periosteum, but mainly to that organ.

It will now be in order to introduce such testimony as is available, tending to throw doubt upon the theory of periosteal reproduction of bone.

Du Hamel soon found an opponent in the person of Haller, who founded his arguments against periosteal osteogenesis by comparing the mode of development in bone originally, the rudiments of the future bone being traced from its earliest distinguishable appearance, first having the appearance of jelly, then acquiring the consistence of cartilage, and finally reaching the perfect osseous state, whence it was contended that the structure which thus originated in a distinct form, and independently of any other, could not owe its increase afterward to a different source.

Detlef and Bœhmer, his pupils, continued the investigation by extensive experiments in breaking the bones of animals, and feeding them with madder during their recovery, from the results of which he inferred that Du Hamel had been mistaken in supposing that fractures were reunited by ossification of the periosteum.

Then Scarpa, in a treatise published in 1799, explained that the foliated appearance presented by bones which had been burnt did not depend upon the development of a structure naturally belonging to them, but was an effect produced by the unequal action of the fire. He deprived bones of their earthy constituents by means of diluted acids, then macerating them for a long time in water, he unravelled the texture so as to show that it was reticular, and not deposited in layers. As a consequence of these observations Scarpa denied that bone was formed primarily by periosteum, and if so, it was not probable that the secondary formation was by that membrane. His opinion was keenly embraced by several pathologists of the present century, and particularly by the French surgeon Levillé.

Bichat was also numbered among his supporters.

Holmes remarks (*Surgery*, vol. iii, p. 74), "The periosteum, however, although the most important, is not the sole agent in the reproduction of bone, so that it may be confidently expected that bone will be reproduced in healthy subjects, even though the periosteum be extensively destroyed."

Wagner, in a paper presented to the New Sydenham Society, reports a number of cases in which bone had been reproduced after the periosteum had been destroyed. The following is an example: "In a case which I had the opportunity of seeing, in which Mr. Savory removed the entire shaft of the radius on account of necrosis, leaving the articular ends, the bone had grown from each of the ends to so great an extent that in eight months after the operation there remained an interval of only an inch and a half, and this appeared to be gradually, though slowly, contracted."

Gross (*System of Surgery*, vol. i, p. 812), speaking of reproduction, says: "The process by which this is accomplished is similar to that which presides over the creation of the original structure. First a deposition of plasma gradually becoming converted into fibro-cartilage, which in turn gives way to cartilage, and ultimately to osseous matter."

The operation of *évidement*, or scooping out of diseased bone, as performed by Sedillot, differs from Ollier's subperiosteal resection, although the object is the same. Sedillot thinks that by preserving a thin shell of bone in connection with the periosteum, he obtains a much better result, giving to the latter, and not to the shell of bone, the credit of the regeneration. Ollier denies the superiority of this operation, and very rightly attributes the regeneration which occurs in those cases to the remaining *shell of bone*.

Sedillot in turn characterizes the entire removal of bone from the periosteum as illogical, inefficacious and dangerous.

"The periosteum unsupported becomes shrunken, and is folded by the contractions of the muscles; it inflames and suppurates. In a majority of cases the limb is shortened and deformed, with no production of new bone."

Dr. W. R. Whitehead presented a paper to the New York

County Medical Society, in which he takes the ground that the reproduction of bone is not dependent upon the periosteum alone, but that many other tissues may participate in new bone growth.

One of the most radical opponents of periosteal reproduction is Dr. W. H. Atkinson (*Med. and Surg. Rep.*, July, 1868), of New York, who denies that periosteum even nourishes bone. He says: "The standing doctrine announced by all the past pathology of bones is this, namely, 'the periosteum is the bone producer and the nourisher of bones.' It were as good sense to say that the scaffold poles on the outside of a new building are the builders of the walls of the edifice, as in the light of the present histology to assert that periosteum is the bone producer and bone nourisher. What, then, is periosteum proper? It is simply connective tissue. What is its function? Simply, limitation of organs.

"A continuous stratum of osteoblasts on the osseous face of the periosteum may be said to be the best bone-seed."

It is unnecessary to further multiply citations, having given every phase of the question a fair hearing.

The design of this paper has been to present, so far as we were able, the most correct account regarding the primary formation and development of bone, furnished by the earlier as well as the later histologists; to render also the opinions of those best qualified upon the subject herein considered; and finally upon this basis, in addition to personal observation and experience, to arrive at conclusions which shall be justly warrantable.

From the peculiar structure of bone, its extreme porosity even in its densest portions, with its abundant supply of vessels and nerves, we cannot doubt of its possessing the faculty of true interstitial growth; or that it may increase or become smaller, after the manner of muscular tissue, and under similar circumstances, only with less rapidity. This degree of vitality and facility of growth in primary bone, we may safely infer, is also largely manifested in secondary formations.

In the section of this paper on the development of bone, we have an exposition of what we believe occurs in original osteogenesis. We here find that bone requires for its development a

suitable soil, as it were, for the reception and proliferation of bone-cells, and although there is intramembranous, intracartilaginous, and periosteal ossification, yet they represent in point of fact one and the same process.

In the intracartilaginous we have first the calcified cartilage, a sort of temporary bone; then is deposited the soft medullary substance in which there is the development of osteoblasts.

The intramembranous presents essentially the same features, having a deposition of soft blastema as a suitable soil for the introduction and development of osteoblasts.

Lastly, the periosteal is almost identical with the preceding. It may be urged that embryonic periosteum possesses an inner layer in which bone development is known to proceed, the bone being apparently made by the periosteum.

As before remarked, bone requires for its development a suitable material, a blastema, or medullary substance.

Now, in embryonic periosteum, we have an inner or third layer; intermingled with and composing part of it is this soft material, in which Müller, Rollett, and others find osteoblasts and bone-cells in process of development as in the other forms of ossification. Not that the periosteum actually forms bone, but it offers a suitable place and condition for the proliferation of true bone-cells.

The existence of the laminated structure upon which so much stress is laid by Du Hamel, Troja, and others, in favor of periosteal osteogenesis (denied by Scarpa and his followers), does not prove that bone already made is deposited from the periosteum, only that osteogenesis has proceeded in this manner as might naturally be expected from the shape of the parts involved. The periosteum of fully developed bone, as is known, consists of two layers, the external layer being the principal seat of the true vessels and nerves; while the internal, composed mainly of fibrous tissue, contains also vessels and nerves which "appear to merely pass through it to the bone itself." At some points it is very loosely attached, at others more firmly. That this membrane really secretes bone seems very improbable. With the knowledge gained by Ollier's experiments, and those of his predecessors and co-workers, it would be absurd to deny the prime importance of

the periosteum in the epigenesis of bone; but I am led to believe that its true function has been very often misapprehended. To assert with Atkinson that it is neither the producer nor *nourisher* of bone, is not in accordance with the facts.

The periosteum certainly does afford the material from which bone is formed; but that it is the sole agent, even in this respect, I think the experiments of Flourens, Ollier, and many others, amply disprove.

Haller's argument against the reproductive power of the periosteum was based on the process of original osteogenesis, that bone grew in cartilage, which it does, although not exclusively. It will be borne in mind, however, that cartilage itself is not ossified (Stricker *et al.*), its cells changed into bone-cells, but that it merely gives place to bone.

Sedillot's operation of *évidement* leaves a thin plate of bone beneath the periosteum, which latter he thinks reproduces the removed portion. But his antagonist Ollier, although the great apostle of periosteal reproduction, rightly gives the credit in this instance to the remaining plate of old bone.

Had time permitted it was the intention to have cited cases coming under personal observation, wherein bone was reproduced after extensive destruction of the periosteum. This included several cases of the tibia, cranium and lower jaw.

One case of the latter was reported by Dr. H. W. Fulton, who called me in counsel, where the inferior maxillary was shattered to pieces by the discharge of a gun, necessitating the removal of about half the bone, including nearly all of its periosteum, and after the closure of the extensive wounds, a cartilaginous formation occurred which in time took the character of bone. The motions of the jaw are normal, and the side where teeth remained performs its functions as before.

In conclusion, we remark that the original formation of bone has been clearly shown to consist of *a proliferation of true bone-cells*, requiring certain elements and conditions, whether existing in cartilage, membranes, or beneath periosteum.

The reproduction of bone, we aver, is almost identical. It is the same proliferation of bone-cells, taking place under certain favorable conditions. It occurs within a deposition of carti-

laginous or other suitable substance, whether furnished by the periosteum or other tissues. Wherever possible the periosteum should be preserved intact, but under favorable circumstances, when this membrane is destroyed in whole or in part, reproduction should not be despaired of, for there is abundant evidence that bone may be formed without the agency of this organ.

LX.

THERAPEUTICS OF BONE DISEASES.

By John C. Morgan, M.D., Philadelphia.

The allusions to the first, second, third and fourth "diathesis" in the following paper refer to my system of classification of constitutions, as positive, or centric (comprising the first and second), and receptive, or excentric constitution (comprising the third and fourth). Mentality, force of pulse, periodicity, manners, &c., furnish the totality of *symptoms* which distinguish each class; for it is the symptoms of each patient which alone determine to which class he belongs. The Transactions of the Homœopathic Medical Society of the State of New York for 1868, and the North American Journal of Homœopathy for 1869, contain a statement of these class symptoms. These being *always* discoverable in the patient, *whether sick or well*, we are thereby furnished a clue to the similimum in every case, no matter how great the dearth of special symptoms in the sickness we are asked to cure.

It will suffice to add that the well-known "generalities" of the *Aconite* patient are a fair sample of the first class constitution; those of *Nux vomica* of the second class; the notorious characteristics of the *Pulsatilla* constitution represent emphatically those of the third class; and those of *Coffea*, equally familiar, illustrate admirably the general or constitutional traits of the fourth class.

With Aconite I classify any other "benumbing neurotics," strictly so called; with Nux vomica, all narcotics and bitter tonics, so called; with Pulsatilla, a simple acrid, all other simple acrid drugs; and with Coffea all other stimulants and antispasmodics known to allopathy.

It is well known that this association is justified by chemical and systematic alliance, as well as therapeutic effect; and it is no discredit to it that allopathy recognizes it empirically.

My own claim concerns, 1st, the nerve-origin of most of these class-generalities; 2d, their dependence, severally, upon habitual or even temporary excitation of a definite anatomical portion of the nervous system; 3d, the universality of these in ordinarily healthy persons; 4th, their importance in securing full symptomatic accord of curative remedies; 5th, the specific affinity of certain chemical bodies for these definite nerve-regions, in health and disease; 6th, the consequent pathogenetic primary effect in the same regions; 7th, the mere sympathetic or secondary (not insignificant) character of every other action of such drug; 8th, the facility thus afforded in diagnosing the primary from secondary or remote symptoms; 9th, the aid obtained in selecting the similimum from amongst several (apparently) equally indicated drugs, differing perhaps widely in the class-symptoms, but in no other respect.

1st Class. The specific nerve-region of the first class (Aconite type) is the centre of the nervous system which mainly supplies the internal viscera, the region of organic life, viz., the ganglia of the great sympathetic. Wherever this nerve is distributed Aconite may transmit centric influence.

2d Class. The gray centre of the spinal marrow bears a like relation to Nux vomica (as universally admitted) and to its class-mates. Wherever the spinal nerves are distributed these may exert centric influence.

3d Class. The *termini* of the sympathetic nerves *in the visceral tissue itself* are in direct affinity with Pulsatilla (universally admitted).

4th Class. The animal senses and organs, related to Coffea, &c., are likewise the terminal seat of the *spinal* nerves.

Besides these class-indications, the treatment of bone diseases may be facilitated by considering the various other points which go to determine what is or is not characteristic. I have given a résumé of these in general, in the *American Journal of Homœopathic Materia Medica*, vol. v, No. 6.

For bone diseases in particular we require to note the follow-

ing, whereby our repertories may be utilized, finally comparing similar drugs in the provings of the Materia Medica:

1. Locality, as what bone, which side, shaft or articular extremity, surface or interior.

2. Course and direction of pains.

3. Objective symptoms, as swelling, tenderness, tumor, softening, fragility, fracture, suppuration, ulcer, caries, necrosis.

4. Subjective sensations, as boring, broken, bruised, burning, creeping, cutting, digging, drawing, gnawing, jerking, scraping, stinging, tearing, throbbing pains.

5. Occasions of noticeable exacerbation.

6. Occasions of noticeable amelioration.

7. Collateral states (concomitants), as constipation, diarrhœa, eruptions, cutaneous inflammation, chill, fever, sweat, gonorrhœa, syphilis.

8. Constitutional taint, as ultra-oxygenoid, hydrogenoid, or carbo-nitrogenoid state (*i. e.*, sanguine, hydræmic, or gouty), mercurialism, scrofula.

9. Exciting causes, as blows, sprains, cold, bad feeling, fatigue, mental disturbance.

10. Genius epidemicus.

11. Previous medication.

12. Class, symptoms.

Aconite.—In first diathesis; acute osseous inflammation, original or intercurrent; pains of a gnawing, or tearing, or drawing nature, or simple aching relieved by pressure, or prickling, or as if bruised in the overlying tissues; with numbness, pains as from tight band, pains about joints; aggravation by movement, after exposure to dry cold wind or open air; fever, thirst, anxiety, restlessness. Periostitis; endostitis; ostitis; spina ventosa.

Arnica, Belladonna.—In second diathesis; after contusion, or with bruised pains; pain piercing, pricking, pressive, throbbing; with swelling, redness, tenderness, scanty suppuration; softening and bending of bones; caries; necrosis; joint-affections. Periostitis especially, in common with class second; endostitis of the facial bones; rickets; mollities ossium.

Chamomilla.—Pressing, tearing, aching; flashing through the periosteum, with paralytic weakness of the part; grumbling,

drawing, jerking pain; erysipelatous inflammation; suppuration; intolerance of pain, wants to be "on the go" all the time, has to get out of bed at night and go about for relief, especially towards morning; choleric people; effects of cold air; aggravated by coffee. Periostitis; endostitis of the lower jaw.

China.—Periostitis (also like Cham., endostitis of lower jaw); pains in *jerks, tearing* (or constrictive); *scraping*, pricking, paralytic pain; deepseated swelling; chronic fetid ichorous suppuration; emaciation; hectic; ill-natured disposition; swarthy people, inclined to morning diarrhœa, colicky, windy, undigested. Local aggravation by contact, even by the proximity of careless persons. Necrosis and caries.

Conium.—Pricking pain, or tearing constriction, like a band, with swelling, induration; caries, necrosis, from periostitis (also endostitis of lower jaw); after old injuries, discharge of viscid pus.

Dulcamara.—Aggravation when the thermometer falls; effects of exposure to cold, damp air; pains and collateral symptoms resembling China, but in persons of a *very white complexion* (containing no tannic acid). Periostitis; caries, with boring pain, tumefaction, and scanty suppuration, of a yellowish tint; rickets.

Lachesis.—Periostitis ending in necrosis, with pricking, tingling, tearing, drawing pains; extensive bluish, livid swelling; fetid discharge; excavation in the bones (tibia, &c.); gangrenous appearance of the sore, satellites around it; typhoid tendency, or dulness of mental operations.

Nux vomica.—Crampy, bruised, jerking pain; contractive, paralytic, pricking, tearing, drawing (pulling?), tickling sensation in periosteum, along with indigestion; constipation; piles; after stool sensation as if the rectum contained more fæces to be passed.

Rhus tox.—After exposure to a hard rain, or bathing, or wading in water, or after a severe sprain, or after erysipelas and low fevers; burning, contractive, jerking pain, or as if bruised, or beaten off bones, or scraped; stiffness; tickling, worse in any continued position and on commencing to change it, better afterwards. Rickets; mollities ossium; stiffness and

numbness; aggravation in cold wet weather; joint cases; spavin; exostosis.

Stramonium.—Morbus coxarius, left side.

Ammonium mur.—Third diathesis; psoric or syphilitico-mercurial periostitis, causing caries; loss of nasal septum, palate, &c.; serous discharge; necrosis; anchylosis. Pains gnawing, ulcerative, or as if sprained, in limbs; tearing when sitting; better by rising; only *temporary* amelioration while continuing in motion. (Rhus, complete?) Joint cases, with stitching when sitting. Os calcis feels bruised. Disposed to lie crooked, to relieve pains in limbs. Cold feeling between shoulders; fat people.

Arsenicum.—Tearing, pressing, burning; worse near midnight; thirst for little water, often; cadaverous face; harsh skin; periostitis (syphilitico-mercurial, &c.); caries; necrosis. Amelioration by warmth (venosity?).

Bryonia.—Bones feel as if the flesh were beaten off them (Rhus), or pain is pressive or aching, or catching aggravation by cold and by the slightest motion. Thirst for large and rare drinks. Periostitis; endostitis? Cold feelings; burning pains.

Calcarea carb.—Scrofulous, leucophlegmatic constitution, big belly, glandular swellings, "*mucous* habit," flaccid muscles and skin; ostitis; softening; caries; necrosis; exostosis; rickets; curvatures of spine; crooked limbs; hydrocephalic symptoms; spina bifida; open fontanelles; voracious hunger; sinuses after gunshot fracture. The pains may be boring, throbbing, stitching, or jerking; the bones enlarged, softened, distorted. The upper lip may be swelled; the nose swelled and red; the bowels costive or loose. Locally, pale and spongy or callous swelling; fistulous tracts, indolent; discharge milky or yellowish, bland or fetid. Ununited fractures; nodes; white sediment in urine; soreness of scalp; throbbing headache; can't bear to step.

Calcarea phos.—Ostitis (periostitis, endostitis?); softening; rickets; mollities ossium; ununited fractures; ununited sutures of skull or spine; tardy teething; caries; joint affections; laming rheumatic pains, worse by motion, especially worse by walking or after taking cold; swelling and lameness of the part.

Carbo veg.—Tearing, pulling, burning, pricking, boring, or

throbbing pains; ostitis; joint contusions; great nutritive debility; shock; prostration; cadaverous discharge.

Fluoric acid.—Diseases of the maxillary bones and teeth. Fragilitas and mollities ossium; ununited fracture in old age; caries; deepseated soreness of bones; sensation of heat, gnawing, cutting, drawing; fistula very tender to touch; contused feeling, deep in the bones. Ostitis; dull aching pain in long bones and much deepseated tenderness.

Hepar sulph.—Bruised pain, or as if broken, or boring, aching, throbbing; suppuration; softening; caries; crookedness; joint affections; mercurial cases; bad effects of metallic drugs in general. Tenderness and bruised feeling in bones, with weak feeling in the limbs. Hectic sweats. Ostitis; periostitis.

Kali hydriod.—Jaw and palate cases; sensation as if a worm eating. Mercurio-syphilitic disease.

Lycopodium.—Inflamed sebaceous follicles. Scrofulous, moist, or branlike eruptions; rickets; mollities ossium; caries; crooked bones; ununited fractures; tearing, gnawing, jerking, contractive or boring pain, or pricking, burning, throbbing, with swelling, or a sensation in the medullary cavity as if the marrow were gone; ostitis; periostitis; endostitis; sad mood; dyspeptic flatulence; aggravation by heat; red gravel in urine; pain on rising from seat.

Mercurius.—Ostitis; periostitis; endostitis of skull, palate, nasal bone, lower jaw, long bones; nightly bone pains very severe, or tenderness; thin watery discharges; profuse salivation; tongue, flabby and printed by the teeth; sweats, which aggravate, adding to the symptoms; great debility; enlargement of bone, with boring, aching, throbbing, tearing, or stitching pains, or as if broken; exostosis; caries; softening; curvatures.

Mezereum.—Periostitis; endostitis; exostosis. Syphilitico-mercurial disease, with severe pains in tibia, ulna, femur, jaw, skull; periostitis of vertebræ; palate very sore to touch. Pains paralytic; tearing, aching, throbbing, stitching nodes. (Neuralgic pain in the course of the malar branch of the 5th pair.) Joint cases; spina ventosa (spavin).

Nitric Acid.—Mercurio-syphilitic cases. Ostitis; softening, swelling; caries; ununited fractures; curvatures; pains as if the

flesh were beaten loose, especially in the long bones, with tertiary syphilitic eruptions, copper-colored spots or *rupia;* deep soreness.

Phosphorus.—Ostitis, with enlargement; exostosis; necrosis (especially of lower jaw), beginning at a decayed tooth; softening; curvatures, with inflammation and burning, gnawing, tearing, stitching pains, very severe, preventing sleep. (Tertiary syphilis.)

Phosphoric acid.—Boring, burning, tearing, aching, stitching; joint cases. Ostitis, especially of skull and lower limbs. Rickets. Mollities ossium. Amelioration by motion and pressure; ununited fractures; apathetic indifference; emaciation; debility.

Phytolacca dec.—Tumors developed from periostitis or endosteal irritation. Aching in bones of forearm after going to bed, uninfluenced by position; periostitis, syphilitico-mercurial, rheumatic, in frontal bone, maxilla, extremities, joints; pains, sharp, cutting, drawing, aching, driving the patient out of bed and compelling energetic exertion, which ameliorates; or in other cases, dull, aching, and lancinating pain, preventing motion or pressure or standing on it, with or without tumefaction, and red and shining surface; tending to necrosis. Nodes and ulcers.

Sepia.—Diseases of bones, with eruption about the elbow, &c. Pains, pricking, boring. Caries; necrosis; ununited fractures; crookedness, with softening. Want of appetite; loathing food; goneness in stomach. Thirst like Natr. m.

Silicea.—All kinds of bone diseases, with mental symptoms like Puls., with fistulæ, thin ichorous discharge, or thick and fetid pus. Enlargement and induration, or swelling of tissues; tenderness, numbness, boring pain. (Spavin.) Fetid foot-sweat; inclined to catch cold by feet; wants to be muffled up.

Staphysagria.—Affections of the alveolar processes and teeth; spongy gums; tumors of periosteum. Scorbutic conditions; caries; tendency to softening of the spinal and other bones, with threatened suppuration; rigors; throbbing; discharge of very fetid pus; mollities ossium; rickets; itch-like disposition of skin, not easily healing; morbid functions of skin in general; irregular morbid temper; gnawing, boring, shooting, pricking, tearing, drawing, cutting, throbbing, burning; numbness; aching, tear-

ing pains, brought on or increased by moving; tenderness. Craving for food, but it has no taste. Periostitis; ostitis; caries; periosteal tumors; fungus-like epulæ. Decayed teeth; gnawing and boring in ununited fracture. Mucous habit.

Sulphur.—"Constitutional" remedy at some point in the history of a large majority of old cases; *all* the tissues, hard and soft, giving signs of bad nutrition and difficult, more or less painful functions; muddy skin; hot head and cold feet, or other inequalities of heat; irregular hunger (11 A.M.); nearly all kinds of pain, especially contractive, band-like or cord-like, burning, and as if the flesh were beaten off, with tenderness; all bone diseases and ununited fractures; anti-mucous habit; all tissues involved sometimes.

Veratrum.—Mucous habit; pains which bring out cold sweat, especially on the face and forehead; pain, as if broken or bruised; numb pressure, tearing, drawing, prostrating, coming suddenly, making him angry, or producing symptoms of constitutional shock; worse in bed, better by getting up, worse and better by turns (Bell.); excitement; no shock; tumefaction of periosteum. Melancholy dejection, like remorse, and tendency to a frightened mood; "bad conscience;" fly-away feeling.

Angustura.—Fourth diathesis. In coffee-drinkers; endostitis; caries; spina ventosa. (Irresistible craving for coffee.)

Argentum.—Pressing, drawing, tearing, aching pains; joint cases, with *laming* pains; pains referred to the endosteum; burning, stitching, aggravations, most in the middle of the day. Periostitis; endostitis; ostitis; enchondroma; synovitis; morale easily affected to merriment or tears by mental impressions, when not in pain; with the pain, restless anxiety, taciturn, ill-humor.

(Note.—Fine skins do not well bear the metallic members of class fourth.)

Asafœtida.—Is suited to every form of bone diseases, as well as joint cases and ununited fractures, with swellings and all kinds of pains, the *class-traits* being the special indications. "Nervous," scrofulous people; "scrofula of the bones." (It is a gummy oleo-resin, the volatile oil consisting of about twenty per cent. of sulphur in chemical union with C and H.)

Discharges usually ichorous, fetid, thin, from ulcers with ele-

vated bluish edges; sensitive (like the bone itself) to touch, with patches of tenacious lymph on the surface; aggravation when sitting, but feels very weak when standing; can't sleep well in a feather-bed.

Aurum.—Also a great variety of cases, especially scrofulous and syphilitico-mercurial, and cancerous face, with almost all kinds of pain, especially tearing, drawing, cutting, with enlargement of the bone and tenderness; ostitis; caries; carious diseases of palate and nose, with nasal voice. Nodes. Spongy, ulcerated gums; glandular swellings; suicidal disposition; despairing melancholy; fits of crying; can't bear the pain; bilious habit.

Capsicum.—Incipient periostitis, with tenderness to touch, or with "subperiosteal abscess" (or "ulceration of bone," *i. e.*); superficial caries. The mastoid process of the temporal bone is one mark of its specific relations, and is found with tenderness to touch. (Toothache, with exposed and inflamed medulla.) Pains like bruises and sprains; numb feeling, worse at rest; stiffness and broken feeling in joints, on rising and commencing to walk, better by continued motion. (Rhus.) Drawing, tearing about the spine and elsewhere.

Caulophyllum.—Diseases of the small joints.

Graphites.—Gnawing and burning, tearing and drawing, and sprained or bruised, numb or broken pains, especially in the epiphyses and about the joints, with stiffness and indurated swelling; tender, inflamed, scurfy ulceration. Drawing and aching in the maxillary bones; gnawing in the alveolar processes. (Discharges apt to be gluey, or disgusting in odor and thin.)

Ledum.—Affections of cartilaginous and synovial connections of bones; tenderness referred to periosteum of epiphyses and about the joints; feels sprained, numb, bruised, sore, or as if the flesh were separated; joint cases, with shining, puffy swelling; flexed stiffness. Pains ascend from joint to joint, with trembling on attempting to exert the part in any way; it feels better when rubbed upwards. Pains tearing, sticking, pressing, worse by motion; paralyzed, sprained, contracted feeling in the muscles; itching eruptions; weak feeling in joint. Periosteal pains, as if bruised, or sore, or separated from the flesh, increased when

walking, sitting, and by touch. General cold feeling, but limbs get too warm in bed.

Manganum.—Intolerable grinding, boring, gnawing, inflammatory pains of periosteum, joints, epiphyses, and processes of bones, felt most at night, or when pressing joints together, or when weather changes; or tearing, drawing, burning, pricking, lancinating, or paralytic darting pains, or as if sprained or tensive. Morbus coxarius, first and second stages; synovitis; chondritis; cartilages of joint (ankle) inflamed, with intolerable pain on attempting to step on it. Peevish, despondent, sad, apprehensive, or absent-minded.

Ruta grav.—Less penetrating than metals. It is suitable for many bone and joint cases, with bruised, broken, gnawing, burning, corrosive, contractive, stitching, pricking, tearing, drawing, tensive pains and swelling; diseases and injuries of the carpus and tarsus; fistulous openings; gnawing or bruised pain in skull; circumscribed tenderness of the sterno-costal cartilages; painful, bruised or pressive, or darting, or drawing pains in the vertebræ and sacrum, interfering with respiration. Intense sprained pain in shoulder-joints; better by lifting and drawing the limbs, worse when hanging down, and when resting the limbs on anything. Tearing and crawling pains in the long bones of the upper extremity, or bruised pain. In the joints, hard pressure, or weakness and pain, as from a shock; or as if sprained or bruised, extending to adjoining bones.

In the lower limbs, pains as from falling and bruising in all the joints, preventing bending. Bruised pain in iliac and all the other bones, or pains as if broken.

Generally burning, gnawing referred to periosteum, or bruised pains in bones, joints, and soft parts. Aggravations when resting (sitting), but easily tired; worse in bad weather. Indicated in traumatic periostitis and ostitis, in contusions, sprains and joint cases.

Sabina.—Necrosis; caries; paralytic, tearing, drawing, lancinating, tensive, pressive, burning pains, or as if sprained or luxated. Periosteal pains, especially about epiphyses and joints; distension of joints; aggravation when hanging down; red swelling.

Symphytum.—Promotes union of fractured bones. Also suited to the effects of blows, bruises, and fractures generally.

Zincum.—Tearing, drawing, tensive, pressing, stitching, gnawing, boring pains. Pains involving joints; much itching around joints; also in the shafts of long bones, violent tearing and drawing as if the shaft would come apart. Suited to neuralgic exacerbations in diseases of bone tissues, especially in persons of dark, firm integument, and when the intervertebral ganglia are tender on pressure.

SECTION VI.

REPORT

OF THE

BUREAU OF ORGANIZATION, REGISTRATION, AND STATISTICS.

W. M. WILLIAMSON, M.D., ... Philadelphia.
HENRY M. SMITH, M.D., ... New York.
E. U. JONES, M.D., ... Taunton, Mass.
PEMBERTON DUDLEY, M.D., ... Philadelphia.
MOSES F. PAGE, M.D., ... Appleton, Wis.
CIRO S. VERDI, M.D., ... Mt. Vernon, O.
F. HILLER, M.D., ... San Francisco, Cal.

TO THE

TWENTY-SIXTH SESSION

OF THE

American Institute of Homœopathy.

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XV. Statistics of Comparative Mortality under Homœopathic and Allopathic Treatment, in Special Diseases, in Philadelphia, during the year 1872, ... PEMBERTON DUDLEY, M.D.

XV.

STATISTICS OF COMPARATIVE MORTALITY

UNDER HOMŒOPATHIC AND ALLOPATHIC TREATMENT, IN SPECIAL DISEASES, IN PHILADELPHIA, DURING THE YEAR 1872.

By Pemberton Dudley, M.D., Philadelphia.

The final and only incontrovertible test of the correctness of any medical theory is found in the results of its practical application. And as regards the truth or falsity of the peculiar doctrines held by the homœopathic school of medicine, the public and the general profession alike have an undoubted right to demand this testimony. From the first promulgation of homœopathy, its advocates have anxiously waited, and watched, and entreated, and labored to secure an opportunity to make and publish the results of such a test, in order not only to convince the public of the justness of its claim as a superior method of treatment, but also for the purpose of securing for it the support of the profession as a whole. These efforts, on the part of homœopathists, have almost entirely failed, because of the opposition to and persistent evasion of the proposed test by the allopathic school. They might, however, have been applied in general private practice, but for the great disproportion in the number of practitioners of the opposing schools, and the want of full and reliable records of deaths. Of late years, in some of our large cities, both these difficulties have been overcome, and the opportunity, so long and so anxiously sought by homœopathic physicians, can be no longer withheld. The allopathic school,

so long accustomed to oppose reason by ridicule, facts by denial, and our importunities for a public trial of the rival systems side by side by an arrogant professional Phariseeism, must now consent to give reason for reason, fact for fact, figures for figures, or else confess herself defeated in the contest.

Acting under the direction of Dr. E. M. Kellogg, the energetic Vice-President of the Homœopathic Mutual Life Insurance Company of New York, I have recently made a thorough and complete examination of the records of deaths for the year 1872, in the Health Office of the city of Philadelphia, with a view to ascertain the comparative number of deaths occurring under the treatment of the two great rival schools of medicine. The sum total of numbers obtained have been already laid before the American Institute of Homœopathy at its present session, being embraced in Dr. Kellogg's report. It was thought, however, that whatever might be the superior success of the homœopathic system in all diseases taken together, still it was possible, and even probable, that in some special forms of disease the balance of mortality might be found favoring the other side. I therefore determined to keep a number of the more prevalent and fatal diseases separate from each other, believing that the results would be instructive to physicians and significant to the public. The time selected for making the investigation was peculiarly favorable, there having just been issued a revised edition of "Dr. Packard's Medical Directory of Philadelphia," containing, according to the author's preface, "the names only of graduates of respectable medical schools, who are reputed to be in the regular (*i. e.*, allopathic) practice of medicine in Philadelphia." A revision of the "List of Homœopathic Physicians of Pennsylvania," now in press, was also at hand. From each of these lists were erased the names of all physicians resident in hospitals, or having general medical supervision of the same, all in the service of the army and navy, and all who were known to be not in actual practice and resident in Philadelphia. This left on the homœopathic list 168, and on the allopathic list 655 names, being in proportion almost exactly 1 to 4. In making the examination of the "Records," I rejected all hospital cases, and all cases reported by those whose names had been erased from

the above-named lists; also all coroners' cases, all stillborn cases, and all cases returned from outside the city limits. Besides these, there were of course excluded all cases reported by physicians or others who are not acknowledged as belonging to either school of practice.

The total number of deaths registered during the year was .	20,544
Of these there were rejected as above specified, ...	5,914
Leaving as the basis of estimates, ...	14,630

And of these 14,630,

168 Homœopathic physicians lost	2,162
An average to each physician of $12\frac{7}{8}$.	
655 Allopathic physicians lost	12,468
An average to each physician of $19\frac{1}{21}$.	

In other words, each homœopathist lost about two-thirds as many as each allopathist.

Problem.—If homœopathy by "doing nothing" loses 13 patients a year, and allopathy by doing *something* loses 13 plus 6 in the same time, what causes the death of those 6, and what *is* the "something?"

But we are not allowed just here to ask even pertinent questions, for the allopathist is suddenly reminded of the anecdote of the sick man who once started out in search of a doctor. This gentleman, it is said, possessed the ability to "discern spirits," and was somewhat discouraged to find the doorsteps of all the M.D.'s crowded with the spectres of those whose "mortal coil" had been prematurely "shuffled off" by reason of dosing overmuch, prescribed by the within doctors. After a patient search, however, he discovered in a back street an old physician at whose door there lingered but one "spirit of the departed." The delight of our hero, however, was speedily dissipated on being informed that the aforesaid "spirit" represented the only patient the old doctor had ever treated. Now the staleness of this joke at our expense must be sufficiently apparent. It must have originated before the introduction of homœopathy, for if our system be, as is charged, a "do-nothing system," surely no spectre of an overdosed patient can shake his gory locks at us;

and timid allopathic physicians who are minded to try a little homœopathy need have no fears of "seeing ghosts" at our doors.

The question, however, as to the relative amount of practice enjoyed by the two schools, is a perfectly reasonable one, and we shall by no means try to evade it. It is reasonable to suppose that any difference in this respect must be but slight, since it is known that the average practitioner of either school in Philadelphia has, during busy seasons, as much practice as he can properly attend to. Above this point, any great increase in the number of his patients must result in an appearance of neglect, at least to some of them, and in the desire of the neglected patients to secure a medical adviser who could give closer attention. The limit in the amount of practice is therefore seen to be easily reached, and beyond this limit any change must be in quality rather than in quantity. Again, there is no perceptible difference either in the amount of labor performed or the degree of prosperity enjoyed by practitioners of the respective schools.

There is another method, however, by which the relative amount of practice may be approximately ascertained. It is admitted by both schools that their cures of pulmonary consumption are extremely rare. The mortality under this head, other things being equal, ought to be about equal for the two systems. We find as the actual proportion of deaths from this malady about 5 under homœopathy to 6 under allopathy; indicating that the homœopathists had $\frac{5}{6}$ as much practice as the allopathists. Now the total mortality under all diseases should then have been as 5 to 6, whereas it was but 4 to 6, showing the homœopathic loss, even from this view, to be only $\frac{4}{5}$ as great as that of allopathy from an equal number of patients. But we will not concede to allopathy even this much; for, although we make no special claims to great success in *curing* consumption, we do claim to *prevent* it in a large number of instances. Now we find that the average age of those who died from consumption under allopathic treatment was 33 years and 9 months, while under homœopathic treatment it was 36 years and 3 months, a difference of 2 years and 9 months in favor of homœopathy. During these 2 years and 9 months it is evident that a

considerable proportion of those liable to consumption must have died of other diseases, thus appearing to diminish the relative amount of practice held by the homœopathists, and swelling the mortality from other diseases. Besides this, any system which could prevent the invasion of consumption for 2 years and 9 months on an average in every case could prevent it altogether in very many cases.

Again, it is found that the homœopathic loss from inflammation of the lungs was only two-fifths as great as the allopathic. It is not unfair to assume, that a system so successful in averting death from this disease, could also prevent a large proportion of cases from passing into those subacute and chronic forms which are but too frequently the precursors, and probably the exciting causes, of consumptive tuberculosis. We claim that the facts we have herein pointed out will account for nearly all the difference in relative number of cases of consumption occurring in the practice of the two schools, and that the amount of practice is therefore about equal under both systems, proportioned of course to the number of its practitioners.

The table on the following page exhibits the total number of deaths occurring from the special diseases named under the two respective methods of treatment, and the average age attained under each disease.

From this table it will be seen that under three heads the number of deaths reported tell in favor of the allopathists, viz., in dropsy of the brain, in the remaining forms of dropsical diseases taken as a whole, and in marasmus. Under three other heads the losses are substantially equal, viz., in scarlatina, palsy, and old age. Under the remaining twenty-one heads the balance is in favor of homœopathy, and also under all other forms of disease taken as a whole. In regard to the average age attained, it is found to be nine months and twelve days in favor of homœopathy. In apoplexy the mortality during the hot season was equal under both systems; but during the cooler months it was greatly in favor of the homœopathists. In dropsy of the brain the average age attained was apparently much in favor of allopathy. The reason of this is found in the fact that from this disease the allopathists lost fifteen adults, while the homœopa-

thists lost none. In the remaining forms of dropsy the balance against the homœopathists continues persistently throughout the first nine months of the year; while during the remaining three months it is as steadily and about as greatly in favor of that side.

Diseases.	Deaths reported by 168 Homœopathic physicians				Deaths reported by 655 Allopathic physicians.			
	No.	Average age.			No.	Average age.		
		Yrs.	Mos.	Dys.		Yrs.	Mos.	Dys.
Apoplexy,	28	59		13	162	57	10	8
Cancer, all forms,	36	54	2	12	216	53	7	12
Cholera Infantum,	214		8	5	1149		8	12
Congestion of Brain,	59	19	4		328	18	11	21
Congestion of Lungs,	24	25	1	8	166	25	8	23
Convulsions, Infantile,	77		10	2	414		9	28
Consumption,	292	36	6	15	1462	33	9	23
Croup,	27	3	5	19	218	2	7	
Diphtheria,	19	4	8		111	5	4	9
Diarrhœa,	14	12	11	6	116	27	7	
Debility,	73	54	10	9	564	43	6	16
Dropsy of Brain,	44	1	10		141	6	6	7
Dropsy, other forms,	73	53	10	27	225	48		10
Heart Disease,	59	41	7	16	436	40	6	8
Scarlet Fever,	30	4	10		108	4	7	3
Typhoid Fever,	47	32	10		225	29	6	2
Hooping-Cough,	13	1	4	25	121	1	2	25
Inflam. of Brain and Meninges,	71	7	4	28	419	9	4	21
Inflammation of the Lungs,	68	27	2	11	663	28		12
Bronchitis and Pulm. Catarrh,	31	12	8		257	13	3	25
Peritonitis,	8	29	9	4	96	32	7	5
Gastritis and Enteritis,	37	28	2	23	195	27	4	26
Marasmus,	132	4	3		486	4	1	23
Measles,	14	3	1	12	100	3	6	
Old Age,	51	86	7	13	213	82	5	1
Paralysis,	40	66	8	12	157	62	1	7
Small-Pox,	256	15	11	24	1502	14	7	6
All other diseases,	324	25	10	12	2218	27	8	5
Total,	2162	24	4	24	12468	23	7	12

In connection with the subject of dropsy, we may consider a single point which serves to explain the large balance in favor of the allopathic or old school in the treatment of dropsy.

It is well known that patients "nigh unto death" frequently change not only their physician but their system of medical treatment. The homœopathist claims that these changes tell against his side in the controversy; while the allopathist makes the same claim for himself, and with equal earnestness. Now the peculiar class of diseases in which these changes are made includes,

mainly, those which do not run a certain limited course, but rather assume a more chronic form; and which, while they appear to be tending towards a fatal termination, yet hold out to the patient and his friends more or less hope of a possible cure. The absence of this hope prevents these changes in consumption; and its presence occasions them in dropsy. It is reasonable to suppose that every physician will meet, in the ordinary course of practice, an equal number of these cases in which he will be discharged, and another system of treatment employed. Now in Philadelphia there are one hundred homœopathists to every four hundred allopathists, and if each one of these meet with one such case, we shall have four hundred allopathic patients divided among one hundred homœopathic physicians, or four to each physician; and one hundred homœopathic patients will be distributed among four hundred allopathic physicians, or one-fourth of a case to each physician. Thus it will be seen that in Philadelphia these changes must tell sixteen to one against homœopathists. In regard to dropsy, now under discussion, the total number of deaths was one hundred and eighty-five, of which the homœopathic share would have been thirty-seven, or seven less than the number reported. If, out of these one hundred and eighty-five, eight patients, or one in twenty-three, near the point of death, had changed their method of treatment, the homœopathists would have lost seven of these and the allopathists one; and this number would account for the balance against homœopathy. This point is presented for the consideration of each candid physician.

Under the head of bronchitis we have included also the pulmonary catarrhal affections of childhood. This class of diseases was kept separate in this report, lest it should be said that our brilliant success in pneumonia was apparent only, and was due to errors of diagnosis. It will hardly be claimed by the allopathist that we have reported deaths from bronchitis which were really caused by pneumonia, when he sees that in bronchitis likewise the homœopathist lost less than half as many as he did.

And now you will ask about the deaths from "old age." If people under homœopathic treatment do not die of any special disease they surely must die of old age. We have always claimed,

not entirely by way of jest, that in this one "disease" the homœopathist must eventually lose more than the allopathist. How happens it then that the losses under this head are almost exactly equal? We will try to answer. The patients of allopathic physicians begin to "die of old age" at the age of 65 and quit at the age of 107. Homœopathic people do not begin until the age of 73, or eight years later than their less favored allopathic neighbors, and they continue at it until the age of 115 years. The average age of allopathic patients dying from "old age" is set down as 82 years and 5 months, while that of homœopathic patients reaches 86 years and 7 months. It would appear then that the allopathists have reported some deaths from old age which homœopathic physicians would have ascribed to a different cause. It may be, however, that there are a large number of old people under the care of homœopathic physicians who, under a different system of medical advice would have died ere this time of old age, but who, appreciating the blessings of homœopathy, look up and with thankful hearts exclaim with Webster, "I still live!"

In concluding this paper let me say that if the facts it contains shall induce homœopathic physicians to rest content with the degree of success, brilliant as it is, which they have already attained, it were better, far better, that it had never been written. But, if it shall incite them to a more earnest effort to perfect our knowledge of disease and of the Materia Medica, it will achieve the object of its preparation and will enable us to do greater things than these.

SECTION VII.

REPORT

OF THE

BUREAU OF ANATOMY, PHYSIOLOGY, AND HYGIENE.

A. R. THOMAS, M.D., ... Philadelphia.
J. D. BUCK, M.D., ... Cincinnati, O.
S. S. GUY, M.D., ... Brooklyn, N. Y.
R. N. FOSTER, M.D., ... Chicago, Ill.

TO THE

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XX. The Nervous System, ... J. D. BUCK, M.D.

XVIII.

DIET FOR THE SICK.

By A. R. Thomas, M.D., of Philadelphia, Pa.

What shall the patient eat or drink? This is a question of great importance in the treatment of all diseases, yet one which from a want of definite information upon the subject of food, its nature, preparation, effects, &c., the physician is too often poorly prepared to answer. If in health, in order to preserve this great blessing a constant supply of proper nutriment is so essential, how much more important that the diet of the sick be regulated with every care, and in all cases be adapted in quality, quantity, &c., to the nature of the disease and the peculiarity of the patient.

In considering this subject, I shall speak: *First,* of food in general; *Second,* of diet for the sick in general; *Third,* of diet in particular diseases.

I. ON FOOD; ITS NATURE, CLASSIFICATION, ETC.

For the support of life, and the preservation of the health of the human body, there is required a continual supply of material capable of maintaining the normal temperature, of becoming converted into the growing tissues of the young, and of replenishing the waste which is continually going on at all ages. Such substances, whether liquid or solid, are denominated foods.

In order that the various vital functions of the body be properly performed, a certain degree of heat is required to be constantly maintained. Being usually surrounded by a temperature

lower than its own, the body is continually losing its heat more or less rapidly. The supply of this loss constitutes one of the great problems of life, and only through the *food* can this end be fully attained. With the young or feeble, artificial heat may to a certain extent accomplish this end; but with all, the food must be the main source of supply.

Certain foods only are found capable of maintaining animal heat, and these containing a large proportion of *carbon* have been called *carbonaceous* or heat-producing foods, as sugar, starch, fats, &c.

The various changes which these heat-producing substances undergo in the body, as well as the destruction which attends the functional activity of the various tissues, result in the elimination of animal heat.

The supply of material for growth in the young, and for replenishing the waste which is constantly taking place in all the tissues, constitutes another important requirement of the body, and this can only be attained by the use of food containing *nitrogen* in greater or less proportion, as this substance enters into the composition of all the soft structures of the body. These two, therefore, become the all-important elements of food, while a few minerals in small proportions, as iron, lime, phosphorus, sulphur, chlorine, sodium, potassium, magnesium, and fluorine, with the oxygen and hydrogen of fluids, and of the air, constitute everything essential for the support of the human body.

Based upon the two great requirements of the body, heat and tissue nourishment, Liebig has divided all foods into two classes: (1.) The *nitrogenized* substances, which, from their adaptation to the nourishment of the tissues, he terms the *element of nutrition.* (2.) The *non-nitrogenized* substances, which, from their large amount of carbon serve to maintain the animal heat, and which he calls the *element of respiration.* The former division includes all animal substances, as milk, cheese, all kinds of meats, with vegetable fibrin, gluten, &c., while the latter embrace all saccharine, starchy, and fatty substances.

Inasmuch, however, as all kinds of food contain greater or less proportions of these two important elements, nitrogen and carbon, and as whole races of human beings are known to main-

tain their health while subsisting on either animal or vegetable food alone, as the Esquimaux and natives of India, this classification is not without objection. That offered by Dr. Prout is more natural and more generally accepted. Taking milk as a universal article of food, containing everything essential for maintaining animal life, Dr. Prout shows that it is composed of water, sugar, casein (nearly allied to albumen), and various mineral salts. Based upon these facts, he divides all food into the following groups: I. The aqueous. II. The saccharine. III. The oleaginous. IV. The albuminous. V. The saline.

I. *The Aqueous Group.*—This includes not only water, but all fluids used as drinks, many of which not only serve to quench thirst, but are more or less nutritious. Pereira divides them into the following six orders.

1. Mucilaginous, farinaceous, or saccharine drinks, as toast-water, barley-water, gruel, &c. These are all more or less nutritious, and in certain stages of many diseases will suffice as both food and drink.

2. Aromatic or astringent drinks, including tea, coffee, chocolate, cocoa, &c. Each of these drinks contains a certain proportion of nutriment, the last two containing oil and starch; while tea and coffee, in addition to their stimulating effects, are believed to exert an influence like alcohol in arresting the waste of tissues.

3. Acidulous drinks, as lemonade, tamarind-water, raspberry-vinegar-water, &c. These not only serve as pleasant cooling drinks, both in health and sickness, but possess valuable anti-scorbutic properties.

4. Broths and soups. These contain in solution the various constituents of their ingredients, and form a valuable article of diet for invalids with a poor appetite.

5. Emulsive or milky drinks. These include animal milk, which contains all the essential elements of food, the milk of the cocoanut, and almond-milk, prepared from sweet almonds, the two latter being but slightly nutritious.

6. Alcoholic and malt liquors. The former of these, in some of its various preparations, forms a valuable restorative in many exhausted conditions of the system, however objectionable its use

as a beverage may be; while the malt liquors, from the sugar, dextrin, &c., contained, possess a degree of nutriment, as well as tonic and stimulating effects, which may be of value to those exhausted by disease or bodily fatigue.

II. *The Saccharine Group.*—This includes the different varieties of sugar, starch, gum and vinegar. Alone, they are insufficient for the nutrition of the body, and animals fed on them exclusively soon die of starvation. Composed largely of carbon, in combination with oxygen and hydrogen, their chief use appears to be that of maintaining animal heat. The carbon uniting with oxygen within the system, is eliminated as carbonic acid, while the other elements pass off as water. These substances, however, appear capable of conversion into fat within the body, and hence the Banting method of reducing obesity by excluding all starchy or saccharine articles of food.

III. *The Oleaginous Group.*—This includes all the fats and oils, whether of animal or vegetable origin; and, like the former group, their chief use is that of the production of animal heat. Composed of the same elements as sugar and starch, like them they are alone incapable of maintaining life, but from their greater heat-producing power, become valuable articles of diet in cold climates.

IV. *The Albuminous Group.*—The substances embraced in this group, in addition to carbon, oxygen, and hydrogen, contain *nitrogen*, with minute proportions of phosphorus and sulphur, and hence are capable of nourishing by becoming converted into the tissues and organs of the body. The group includes all those substances known as the *protein* bodies, as albumen, fibrin, casein, and the allied vegetable compounds, all of which have a similar composition. They are furnished by most animal foods, particularly by lean meats, eggs, milk, &c.; while the allied vegetable compounds are found largely in the cereal grains, all the esculent roots and seeds. Gelatin, which Prout includes in the above group, enters largely into the structure of the skin, tendons, ligaments, and cartilages, and it is from these parts of young animals that the supply is mainly obtained. Although containing nitrogen, it has been questioned whether it goes to form new blood; and yet Liebig suggests "that this substance

may go directly to the formation of such tissues as yield gluten on boiling, and which, if this food were not taken, would have to derive their nourishment from the preceding group."

V. *The Saline Group.*—In addition to the organic substances, sugar, starch, albumen and fat, which form so important portions of human food, certain inorganic or mineral substances are of not less importance. Phosphorus and lime are needed to give firmness to the bones; iron enters into the formation of the blood-corpuscles; dissolved in its serum are compounds of sodium, potassium and magnesium, while chlorine is found in combination with sodium and potassium. These substances, therefore, become necessary ingredients of food, and are found entering into the composition of many vegetable and animal substances. It is from these sources therefore that the necessary supply is derived.

For the perfect nutrition of the body, therefore, man requires that his food contain suitable proportions of these three groups of elements; of the saccharine for maintaining the heat of the body, of the albuminous for the nourishment of the tissues, and of the saline for a due supply of the mineral constituents of the brain, bones, blood, &c., and any deficiency of either will be attended by defective nutrition and impaired health.

II. DIET FOR THE SICK.

In considering the subject of diet for the sick, it will be well to commence by giving a classification of the different forms of diet as generally recognized, with their range of application. These have been divided into 1, fever diet; 2, low diet; 3, milk diet; 4, spare diet; 5, animal diet; 6, full diet.

1. *Fever Diet.*—It is well known that during a high febrile state of the system, the secretion of the gastric juice is almost entirely suspended; hence to place solid food in the stomach at such times is not only useless but positively deleterious. It can afford no nourishment, and only serves to irritate that organ and thus the whole system. To protect the sick under these circumstances nature wisely takes away the appetite for food, while the

desire for drinks is greatly increased, and may be freely indulged.

These facts point at once to the most suitable diet in fevers. The solid food which is so generally loathed should be withheld, while diluent drinks may be freely indulged, saccharine substances being freely absorbed without digestion, while the amylaceous principles are readily converted into sugar by the action of the saliva, unaided by the gastric juice. Toast-water, jelly-water, barley-water, tea, sweetened water, &c., should constitute the principal supply of nourishment, while ripe fruits or berries may be indulged in to a limited extent.

2. *Low Diet.*—The shock attending many surgical operations, serious accidents, &c., as well as in acute inflammation of any important organ, is generally attended by an inability on the part of the stomach to digest hearty food, and therefore by a loss of appetite; hence a diet consisting mainly of liquid food, and known as *low diet,* appears best adapted to such cases. Included among the articles admissible in these cases may be mentioned barley-water, gruel, broth, milk, tea, &c., with perhaps an allowance of toast, arrowroot, corn starch, rice, &c. There is no question but that the influence of such a diet, by diminishing the proportion of blood-corpuscles, is calculated to lessen the tendency to inflammation, or to modify that condition when present.

3. *Milk Diet.*—In what is known as a milk diet, there is usually included the various farinaceous substances, as arrowroot, sago, tapioca, rice, &c., in addition to cow's milk. This is generally the best diet for many of the diseases of children, and particularly for those of a strumous nature. In all cases where the powers of the system have been greatly exhausted, as after hemorrhages, &c., and where we are desirous of supporting the system with the least possible stimulation, the milk diet will be found beneficial. In diseases of the alimentary canal generally, as well as in those of the kidney, bladder, or lungs, the milk diet is usually applicable. When the stomach is very weak, fresh milk will sometimes occasion vomiting, probably from the presence of butter. In such cases skim-milk will be more likely to agree. In bowel complaints it will be better generally that the milk be boiled.

4. *Spare Diet.*—A spare or abstemious diet is one in which vegetable substances are mainly, though not exclusively, employed. It includes the moderate use of fish, with a limited amount of poultry, and is adapted to persons of a plethoric habit with a tendency to apoplexy or gout. The quantity of nutritive matter introduced into the system by a diet of this kind may be considerably lessened, while the digestive organs are kept fully employed.

5. *Animal Diet.*—The only disease in which an exclusively animal diet is recommended is that of diabetes. A considerable variety will be found necessary to satisfy the appetite, and hence there may be included all the varieties of fish, game, and fowl, as well as the different kinds of meats, eggs, cheese, milk, &c.

6. *Full Diet.*—This diet permits of a free indulgence in a variety of vegetables and animal food, and is adapted to the stage of convalescence from a variety of diseases. In many chronic diseases, affections of the nervous system, &c., this form of diet may be permitted. In some cases malt liquors or wine may also be required, and with persons long addicted to the use of alcoholic stimulants, wine, brandy, rum, gin, or whisky, according to circumstances, may be necessary to a limited extent.

As far as it is possible to classify the different kinds of diet, the above arrangement will perhaps cover the ground as well as any that has been suggested.

The requirements regarding diet in disease are so various, as to render it impossible to do more in this paper than give a few general principles, which should govern the physician in its regulation.

INSTINCT AS A GUIDE.

The fact that nature takes away the appetite in most cases of, at least, acute diseases, and that food at such times is loathed by the patient, should serve as a hint to the physician, that the *instinct* of the patient should be regarded, both as to the time of taking food and as to the quality and quantity of the same. In all the lower animals, we observe that instinct not only guides them in choosing the food best adapted to their organism during health, but leads them to abstain from food during illness, or to

select such only as may be best suited to their condition. In man also the same governing instinct influences the Esquimaux in selecting the blubber of the whale and seal for his principal food, and the natives of hot climates in choosing rice, fruits, &c., as best adapted to their surrounding conditions.

Children generally we find instinctively fond of sugar, a substance of much importance for aiding them in maintaining the required temperature; although the Esquimaux child will greatly prefer a lump of fat to one of sugar, solely from its greater heat-producing power. As the child advances from early infancy, and the teeth appear, milk alone ceases to satisfy its desires, and we find it craving solid food. When sick, with both the child and adult, the gastric juice failing to be secreted, the power to digest food is lost, and if taken into the stomach it only irritates and aggravates the condition of the sufferer; hence the appetite is taken away, and the patient instinctively refuses all food, or will take only such as is most easily digested, and that only in small quantity.

How frequently have we heard related stories of patients who, in the days when a full drink of cold water was thought to be sure death to a fever patient, had by stealth partaken of copious draughts of water, dish-water perhaps at that, and to the amazement of all, survived the imprudence; or perhaps the patient has had a craving for some unusual article of food, and he has obtained it only by bribery or stealth, and yet dates his convalescence from that indulgence. In one instance, a typhoid fever patient, thought to be beyond hopes of recovery, expressed a great longing for *sour krout*, and by bribing a night watcher, obtained and eagerly consumed a large quantity of the same. From that night he rapidly recovered.

We hold, therefore, that these instinctive or natural cravings of patients, if not an infallible guide, afford at least useful hints for the management of the diet in both health and sickness.

Where there is a loss of all desire for, and perhaps a loathing of food, then we may conclude the stomach is in no condition to digest nor the tissues to assimilate nutriment, and that it is better for the patient to abstain. The anxiety often experienced

by friends when a patient refuses food, particularly in the early stages of disease, is therefore quite unnecessary.

Again patients often, especially during convalescence, express a strong desire for something acid, or something salt, and rarely will a moderate gratification of this desire be found injurious. Not that the patient is to be the sole director as to what and when he shall eat or drink, but taking his desires as a guide, the physician or nurse may much more successfully regulate those matters.

PREPARATION OF FOOD FOR THE SICK.

Another important point in connection with the diet for the sick, is that of the preparation of their food. A proper article for the patient, and one perhaps strongly desired, may be so spoiled in the cooking, or presented to the patient in so unattractive a manner, as to destroy all appetite, and thus lose to him the enjoyment and benefit which might otherwise have been received. A piece of toast may be so prepared and presented to the patient as to be highly enjoyed, or so spoiled in the preparation, or brought to him cold, or so mussed in its appearance, as to create a disgust and destroy all relish for the same.

It will be impossible here to give particulars or details for the preparation of the food for the sick, yet I would insist upon the importance of the physician giving attention to this matter, and, where it may be under his control, seeing to it that his patient has the advantage of a suitable preparation of his food. Whatever is pleasing to the eye and pleasant to the palate will be found generally to agree with the stomach, and in all cases much may be gained by the proper preparation and presentation of food to the sick.

An important matter in catering for invalids, where the appetite is poor and capricious, is that of avoiding consulting the patients too frequently as to their food. After the peculiarities of the patient have been learned, and the range of diet admissible ascertained from the physician, the nurse should, as far as possible, give the patient a surprise with each meal brought. In this way a fair amount of food will often be taken, when, if the patient

has been consulted in the matter, and is anticipating what is to come, all relish for the same is lost and it is sent away untouched.

III. DIET IN PARTICULAR DISEASES.

It is undoubtedly in affections of the organs of digestion that the proper regulation of the diet will be found most important. The function of these organs being that of the preparing food for the nutrition of the body, and as the wants of the system are continuous and imperative, it is impossible to give these organs the rest which might seem so essential for their recovery. Hence, a cardinal rule in the treatment of all affections of the digestive apparatus should be, to so manage the diet as to secure the *maximum* of rest with the *minimum* of irritation.

For example, let us refer to ulceration of the stomach. Complete rest, which would seem so essential for the complete healing of an ulcer of this organ, is impossible for any lengthened period. But by avoiding all excess of those albuminous substances which it is the special office of the stomach to digest, and by regulating the quantity and quality of these and all other alimentary substances employed, we may secure to the fullest extent possible rest and absence of irritation. By administering, in frequent but small quantity, the farinaceous or starchy foods only, and these prepared in the form of a thickish pulp, we may avoid all distension of the stomach, and secure the passage of the food almost immediately from the stomach to the intestines.

Again, in diseases of the intestinal tract, the same rule holds good. Here, however, the avoidance of irritation is secured not only by a restricted quantity and liquid form of food, and especially by the avoidance of all indigestible solids which would serve to irritate the mucous membrane, but by a selection of such foods as present the least liability to decompose during their passage through the intestinal canal, and thus add to the irritation of the parts.

Diet for Dyspeptics.—The physician is more frequently consulted, perhaps, by this class of patients, as to what they shall eat, than any other, and yet what they seem most to desire is some medicine that will relieve them of their discomfort and permit

them to continue in the same habits which have probably been the cause of the whole trouble. And while it may be all-important that the physician carefully study the symptoms of the case, that he may prescribe the most similar remedy, yet we can but consider that better results would follow were more strict inquiries made as to the habits of diet, and the errors of the same carefully corrected.

Experience proves that it is impossible to lay down rules and prescribe a diet that will be applicable to every case of dyspepsia, yet one important principle that applies to all cases is that of restricting the *quantity* of food taken at any one time. Probably in most cases of dyspepsia there is a deficiency in the *quantity* if not in the *quality* of the gastric juice secreted, and any excess of food, beyond the power of this fluid to digest, must become a source of irritation.

Again, that the patient be not provoked to eat too large a quantity, by the stimulation of his appetite from a variety of flavors, and to avoid the admixture of foods of different degrees of digestibility, it will be better that he make his meals of one or two articles only.

Another important matter, and one which should be insisted upon, is that *time* should be given between each meal for the full digestion of the food and for the stomach to obtain a degree of rest. Where the meals are crowded too closely together, all being brought within the space of eight or ten hours perhaps, improvement can hardly be expected, even though other errors be carefully corrected.

To particularize as to the several articles of food to which dyspeptics should confine themselves is extremely difficult. Each of the five classes of alimentary substances before referred to will be required: in other words, the diet should include both animal and vegetable substances, avoiding such articles of either as are found by experience to disagree. It will be found generally necessary to prohibit all salt or smoked meats, with pork and veal, while beef, mutton or fowls, when roasted or broiled, may be permitted. All *raw* vegetables, of whatever kind, will rarely agree with dyspeptics, and should be strictly prohibited.

Diet in Diarrhœa and Dysentery.—In arranging the diet

for all affections of the bowels attended by frequent loose passages, an important point is to avoid the use of all solid food; everything should be of a liquid, soft or pulpy character. The several gruels, broths, and milk, starch, tapioca or rice puddings, should constitute the principal articles.

It has been a popular idea that blackberries were particularly useful in bowel complaints, and many mothers have been in the habit of giving them freely to their children while suffering from derangement of the bowels. One has only to notice, however, the great number, size and hardness of the seeds of this berry to convince himself of the improbability of such substances passing over irritated surfaces without adding to the existing irritation. In a number of instances of aggravation of bowel complaint, I have been able to trace the cause to an indulgence in this berry.

Diet in Constipation.—The importance of a properly regulated diet in this condition of bowels is well known. The employment of fruits, bread of unbolted wheat, corn bread, or mush, will be sufficient in many cases to correct this condition without the use of medicines. A favorite prescription of the late Dr. Mütter, of this city, I have been told, was a tablespoonful of corn meal in half a tumbler of cold water every morning before breakfast.

I would here refer to the use of sugar in the constipation of children. Dr. Jacobi, of New York, claims that in nursing children troubled with constipation, sweetened water taken every day, in addition to the breast, will correct the difficulty. He assumes that the chief cause of this trouble is an insufficiency of sugar in the milk of the mother; the casein being thus in excess, there is an insufficiency of lactic acid in the stomach and intestines to properly digest this substance.

Diet in Diabetes.—The influence of diet is more marked in this disease, perhaps, than any other, the peculiarity of the disease consisting in the presence of sugar in the urine, accompanied by great thirst and rapid wasting of the body; by cutting off all sugar or sugar-producing foods, the improvement in these symptoms is prompt in appearance and marked in character.

That the source of sugar in diabetes is from the saccharine

articles of food is a matter well established. Probably from some fault of the digestive organs this substance is produced in unusual quantities, and being absorbed into the blood, it acts as a diuretic upon the kidneys, exciting these organs to increased activity, carrying off thus a large quantity of water with the sugar in solution.

As early as the beginning of the present century it was discovered that an exclusively animal diet had the effect of reducing the quantity and removing the sugar in diabetes, and from that time, great attention has been given to the dietetic management of this disease. The widest range of animal food is admissible, including with meats, fish, fowl, eggs, milk, &c, the primary object being that of excluding sugar and all starchy foods—the starch of which is converted into sugar—such vegetables as are nearly destitute of starch may be employed, as cabbage, celery, spinach, watercresses, and to some extent peas and beans. All fruits, potatoes and bread should be rigidly excluded.

The nearly exclusive use of milk has been recommended as a diet in this disease, and in one case treated with a diet of buttermilk, the improvement was rapid, and the recovery permanent.

It being difficult to satisfy patients with a total exclusion of bread, it may be permitted in small quantities, if quite stale, sliced thin and thoroughly toasted. As a substitute for wheat bread, cakes made from the flour of ground sweet almonds have been recommended, this nut being entirely destitute of starch.

It is important also in this disease that the quantity of drink be limited, but as the thirst is usually great this will be not a little difficult to control. In the exclusive milk diet, however, there will be less trouble in regulating this matter.

Diet for Lying-in Women.—From time immemorial it has been the custom to confine women for two or three days, or until after the appearance of the milk, to a diet of the mildest character; gruel, porridge, tea and toast, constituting the usual bill of fare. After the appearance of the milk, if everything is favorable, the diet is gradually improved, until, by the tenth or fifteenth day, the usual habits have been resumed. Recently, however, there has been a tendency to change this custom, and to give the patient a full meal of substantial food, mutton-chops

or beefsteak, with *et cœteras*, soon after her confinement, and placing her under no further restrictions as to her diet. While this plan might work with a few, we think it, by no means a safe course for every case. In the exhausted condition of the system after a severe labor, the stomach can scarcely be in a condition for digesting hearty food, while without doubt the inflammatory tendency during the continuance of the milk fever, would, by such a diet, be more or less increased.

It is equally clear that there is no occasion for placing all women upon the same rigid diet. Where the labor has been short and easy, and the powers of the system but little exhausted, the patient will require very little variation from her usual diet.

Dr. Legroux, physician to the Hôtel Dieu, Paris, allows soups to the patients in his wards on the first day, and solid food on the second after delivery, an egg or mutton-chop, with bread, &c. After the milk has appeared they are allowed their usual diet. He says this plan has but the single inconvenience of eliciting the disapproval of those who have grown up in other ways of doing.

XIX.

DIET OF INFANTS AND YOUNG CHILDREN.

By John C. Morgan, M.D., Philadelphia.

Beyond all other diet for infants is unquestionably that afforded by the healthy, good-tempered mother; next to which is that of a good wet-nurse. Such is the unvarying verdict of all experts in pædology, and it requires but to be stated. A healthy, happy-minded nurse is better than a sickly, nervous, fretful, ill-nourished mother.

But, in multitudes of cases, the latter prefers to drag on in her misery, risking even the welfare of her babe, rather than incur the ills of a new pregnancy. In not a few other cases, she honestly desires to nourish her child, even at the cost of her own emaciation. Sometimes the babe thrives, oftener it loses flesh, and is ravenously hungry most of the time; gaining, by its cries for food, the name of being "the crossest baby that ever lived." Its teeth are slow in appearing, are non-vital; its bones and flesh are soft; its digestion feeble; its nervous tissues morbidly irritable. Hot weather finds abundant prey amongst such infants; irritable brain and bowels, and any amount of toothache, or gumache, are their common experience, requiring, of course, *Gels.*, *Calc.*, *Bell.*, *Cham.*, *Acon.*, &c., as medicinal measures, with change of air, bathing, aided by ice-rubbing of the gums, &c.; but more than these, imperatively demanding a complete reform in the *dietetics* of the nursery.

But while all concede this, there is a general vagueness of ideas concerning its practical realization. Science and experience

have, indeed, accumulated many data, but there is a too prevalent searching for some absolute routine of artificial nourishment, which, being contrary to nature's principle of individualization, must prove a mere will-o'-the-wisp, just as it does in therapeutics proper.

Within certain well-established scientific bounds, we must, on the other hand, remember that as "there is no accounting for tastes," so there is no such thing as safely ignoring the *instincts* and *appetites* of our little (and big) patients, if we would provide successfully for their nutrition. I therefore propose the following as a standard; as a practically available and always acceptable means of selecting the proper dietary for a given individual. In many instances they have afforded me valuable information, which I have made it a point to record, and to which I desire to invite the attention of the Institute.

Firstly: However agreeable and nutritious any diet may be to-day, *rotation* of the bill of fare is sure to be required at some time, or disgust, indigestion, &c., will follow.

Secondly: The food must be composite—nitrogenous as well as carbonaceous, to supply at once flesh, fat and animal heat. But these are to be variously proportioned in divers cases.

Thirdly: It must not appear in the stools, undigested, or be vomited in a like state. Quality or quantity, either one, may be in fault, and *must* be rectified. In this connection, let me say, we should always demand a daily exhibition of the diapers. Children often die of indigestion, discovered only when they are moribund, perhaps; and that, too, when they have had but the mother's milk—abundant, agreeable even, but curdling in the intestinal transit, showing a good hue, but closely resembling chopped or curdled eggs; the mother daily testifying that the stools are perfect. A temporary abstinence from the natural food, and substitution of pure cream or other nourishment, with the right medicine (not forgetting the mother), may often restore the babe to the breast in a few days. If, even, digestion be good, quantity may overdo its action; or again, deficient supply may require to be supplemented artificially.

Amongst the artificial dietetics, we find some whose normal temperature is somewhat high, as milk and cream. As a rule,

food at the heat of the stomach itself is best suited to that organ; and great harm may be done by neglecting to attend to this point. In other cases, easily distinguished, nature craves and must have cooler food. *Milk* is the foremost on the list, even in its ordinary state. But for all that, babes have often starved to death on it, because of not digesting it.

Amongst the special articles, one of the first to be named is PURE CREAM. Warmed, diluted, and sweetened, or frozen, or *au naturel*, it is a grateful and nutritious substance in very many instances; sometimes a little laxative, and thus differing from the farinacea. If frozen, it is of course to be used only in very small portions, and to meet a definite craving of the patient,—not a mere notion, but a real instinct, as in other cases of peculiar appetite.

But cream from the cow, as well as milk, is liable to dangerous contamination by the weeds of the pasture; hence must be selected with reference thereto. How many colics and diarrhœas come by that channel, who can tell?

Cream which is badly separated from the milk has often the same fault of indigestibility and consequent coagulation in the primæ viæ with milk itself. Even pure, rich cream may prove unacceptable, causing vomiting, when, by adding warm water, in new-born children four parts of water to one of cream, with a little white sugar (or sugar of milk), it may do quite well. But the whole stock must not be diluted at once, since the process of putrefaction is thereby favored. In summer, it should be preserved on ice in vessels of fastidious cleanness. If gastric irritability be marked, very small quantities of this or any other nutriment are to be given at any one time, but frequently, as the organ will bear without vomiting or disgust; say a teaspoonful every half hour. In some rare cases, the rectum may supersede the stomach as the receptacle of food—of which, yelk of egg with cream is probably the best form, two tablespoonfuls being injected every two to four hours, for a little child. Nutrition may be maintained through many days in this manner.

But the other components of cow's milk may sometimes be separately utilized. The *curd*, separated by rennet, sweetened, or even, for older persons, the well-known "schmier-kase" or

cottage-cheese, with cream and salt, and possibly pepper, may prove acceptable and digestible in case of general loathing. *Whey*, the curd removed, being the residuum after treatment by rennet, contains the sugar and salts of milk, and is by no means valueless as a semi-nutritious and bland broth-like fluid, when only such things can be borne.

Into all these preparations, we may presume that there enters a certain quantum of modified pepsin, which may be expected to exert a happy catalytic influence upon the stomach, and its other contents, whatever they be. As for themselves, being already half digested by the same agent, they are more manageable by the enfeebled organs than the original milk.

The universal voice of the profession is for *the milk of one cow.* Very well, if the milk be young, and the milkman honest (?). By young milk, is meant that the calving of the animal is recent. Sometimes the milk of one locality proves hurtful, that of another beneficial. Young cows are also preferable.

As a remedy in dropsical cases, *skim-milk* has some empirical reputation; and in phthisis, &c., a wineglassful at bedtime will often prevent night-sweat. But repeated too frequently, its effects cease to be satisfactory. How far the milk preparations of Dr. Swann may be utilized as medicines it is not in place here to discuss.

Asses' milk is probably the most nearly normal of all substitutes for that of the mother; but the comparative rarity of this creature in America, renders it more a matter of curiosity to us than otherwise. In any case, whether of choosing a wet-nurse, or a cow, or any other animal, as the source of an infant's food, the age of the secretion should be *less than that of the babe.* That is to say, for instance, that a cow with a calf one month old may do very well to feed a child of six or nine months. An older udder, on the other hand, may but add to the causes of inanition. Whenever the casein transcends in proportion the powers of digestion, as often occurs with an old secretion, even of the mother, mischief is inaugurated forthwith. The cure lies in its rejection by the wary physician and nurse; with perhaps a little medication.

In this country, the most common substitute for the mother's

milk, next to that of the cow, is *goat's milk.* A young secretion bears a fair resemblance to good human milk, and more frequently agrees with even a sick infant than the best selected cow's milk, supposing it be used entire; as, if the digestive powers be good, it may indeed sometimes be, especially in children who have acquired some general and gastric tone, of which the forwardness of dentition is a pretty good criterion.

Whatever the form of milk used, let it never be forgotten that the diapers are the final test of results, and coagula of casein a sufficient condemnation of the article in use, as a present diet for that particular patient, which no amount of *dilution* can set aside.

Condensed milk is now so common in commerce as to have become an important substitute for the recent article. Sufficiently diluted, it is certainly better than the latter, injured, as it so often is, by the vicissitudes of the hot season. Its character must, however, depend upon exactly the same considerations with ordinary milk. Careful selection and preparation may render it invaluable. But of this, at present, we have to run the risk.

In extreme cases, a swab or teat of linen may be dipped repeatedly into cream, or any chosen fluid, and the child permitted to suck it. Even the well-known "sugar-teat" (white sugar tied up in a piece of linen), with all the fear of "swallowing wind," swallowing the rag, &c., which limits its use, is an occasionally valuable method of conveying nourishment; and may contain other things besides sugar, suited to the purpose. *Butter* is too much a bugbear to those who feed young children. It is calorifacient, palatable when good, and usually digestible.

Many other articles of the infant's diet list require for preparation the aid of milk, in some form or other. Its excellence is therefore a matter of prime importance in a very large number of cases.

Buttermilk should not be forgotten. If sound, it may be of use in low conditions of the digestive system. It has been beneficially added to rice-flour gruel.

Next to these, we naturally consider the substances known as *farinaceous.* And first of these, the *starches*, viz., arrowroot, tapioca, sago, salep, corn-starch.

These hydrocarbons, alone, are calorifacient, and so far useful

in that direction, but are utterly without value in nutrition of the azotized tissues, except so far as to supersede the undue combustion and waste of these in the process of calorification. They also allay the sense of emptiness and hunger, when other food cannot be taken. The same may be said of *sugar in every form*, including honey, molasses, rock-candy, "gum-drops," &c. A dash of tea or coffee, in diluted and sweetened milk (commonly called "cambric tea"), may have a more positive influence against waste, in some cases, supposing them medicinally unobjectionable.

MUCILAGES, as of gum-arabic, or Irish and Iceland mosses, belong to the same category with starch and sugar; barring the iodine of the Irish and the bitterish *cetrarin* of the Iceland moss. They are prepared by steeping either in cold, or better, in hot water, sugar or rock-candy being added, if desired.

GELATIN, as jelly, with or without wine, is comparable with the starches and mucilages. As a constituent of soup, prepared from a young shin-bone of beef (not wholly devoid of meat-fibre), it may prove valuable. Pearl barley, or rice, may often be added with advantage. So also, vegetables, which, for a young child, should be strained out.

VEGETABLE SOUP itself may be mentioned here. It is composed of all the ordinary market vegetables, in their season, so far as convenient, made into a decoction, and strained. Out of season, canned or desiccated vegetables may answer.

In the preparation of these, and in all other sick-cookery, so far as can be, non-metallic surfaces only should be allowed in contact with the materials used. A simple method is to put them into an ordinary bowl, setting this into a saucepan of water and covering the bowl with a saucer (the "water-bath"). The water in the saucepan is made to boil, and thereby the food is duly cooked. If higher heat be required, a pan of sand (the "sand-bath") may take the place of the saucepan of water. Miss Beecher favors the universal use of *salt* in cooking.

The Germans prepare soups of many things not so used by Americans; and it may be well to learn from them. Milk-soup, bread-soup, &c., may be said to be soup or porridge-like

preparations of those substances, rather thin, and often none the worse for that.

The inside of *roasted potatoes*, perfectly done and mealy, prepared to suit the taste, say with butter, milk or cream, and salt, will often prove good food if no contraindication exist. As a general rule, all fruit and vegetables have a laxative tendency, but exceptions may occur, and a mealy roasted potato is as little objectionable as anything of the kind. Fricasséed, or steamed potatoes, prepared with "drawn butter," may sometimes do better, so far as delicacy of palate is concerned.

Various *cereals* hold a high place as artificial diet. Maize, or *Indian-cornmeal*, apparently the crudest of all, may at times prove palatable. The white meal, finely bolted, and extremely well cooked with water, salted to taste, and dressed with cream and sugar, is usually wholesome as well as nutritious.

Whole, cracked, or ground *wheat, barley, rye, oats, rice, beans, lentils, peas*, in soup-like gruel, or porridge form, strained, or made into bread, and as to rice, the well-boiled grain, all are available, prepared with cream, butter, sugar, &c., according to circumstances. Strained bean soup has proved "just the thing" for a child convalescing from dysentery.

Prepared wheat, barley, &c., made with cream and water, not milk, are an extremely valuable class of dietetics. Hubbell, Moxey, Crew, in this city, and other parties elsewhere, manufacture large quantities of the former. The latter answers a good purpose in rotation. Hubbell's process is essentially as follows: The grain, after threshing, being contaminated externally with a filmy siliceous coating, is subjected to friction between two layers of wet canvas, to wash it off. It is then dried on webbing, with the aid of heat, afterwards ground into flour in the ordinary manner, and finely bolted. The first one-sixth bolted is what is termed "pastry-flour," used rarely by any but pastry-cooks, and consisting principally of the redundant starch; this is rejected. The whole remaining portion is then floured and finely bolted, as often as necessary, and sifted in a shallow layer upon unglazed earthen plates, on which it is baked twelve hours at a temperature of about 212°, which bursts the starch-granules, changes this to dextrin, and aggregates the layer into a firm mass.

Finally, this is again floured and bolted. The product is a fine cream-colored flour, containing the normal quantity of albumen and gluten, a good proportion of disintegrated, dextrinized, hence soluble starch, and all the earthy matters, as lime and magnesia; along with the iron, manganese, salines, sulphur and phosphorus, besides sugar and gum. In relation to the bowels, it is anti-diarrhœic; should it constipate, cream reverses this.

Its preparation for use does not differ materially from that of other farinaceous diet. In this connection, a medical friend reminds me to urge, most strongly, two points: 1, boil these articles in water two hours (except those which, like Hubbell's, are already torrefied), in order that every particle of starch may be rendered soluble; 2, if milk be added, let it be only five minutes before taking off the fire, since it suffers by long cooking, in the coagulation and loss of the albumen; and the necessary change of the starch in the meal is also counteracted by the same coagulum.

"Crew's Prepared Food" bears a general resemblance to Hubbell's.

"Moxey's Cerealina" is comparable with these, and derives its name from the nitrogenous, catalytic, digestive principle, named *cerealine*, contained in the grain. All of these substances present the nutritive matter in a favorable state for solution in the stomach after but little boiling, and also deprived to a varying extent of the cruder portion of the bran. Similar remarks apply to prepared barley, &c. The "Keystone Company's flour with sugar of milk," is a competitor with these, and may be preferred by some on account of the latter constituent. Papoma, nutrina, &c., are recent rivals.

Pearl barley is the crude article wholly deprived of bran, by mutual friction of the grains during continued agitation in a revolving mill, without other change.

Farina, a well-known dietetic, is flour prepared from wheat which has been thus "pearled." Both of these consequently require long cooking in order to render their starchy constituents soluble. Moreover the pearling process is wasteful of the gluten and phosphates, so needful for the nutrition of muscle, bone, &c., and which are largely removed along with the bran.

A better preparation, probably, may be improvised by an old-fashioned recipe. Any kind of flour may be tied up in a cotton bag, dry, placed in a vessel of boiling water, and subjected to a long subsequent boiling. The product is then reduced anew to powder, and may be kept at hand for use in like manner, requiring less cooking than farina, &c. It is known as "*boiled flour*." It has some repute as a remedy in diarrhœa, given in the form of "pap."

Various agreeable dietetics, commonly used for dessert, may be made from farinaceous substances, as food for the sick and for young children. Plain puddings and *blanc-mange* are examples. The manufacturers of "Cerealina," &c., give more or less explicit directions on their packages as to these.

Racahout, as prepared by Hubbell, is composed of arrowroot, salep (another starchy principle), farina, and sugar of milk, with cacao, and flavored slightly with vanilla. It is used as a nutritious drink, resembling chocolate in some degree. It is suited to nursing mothers and convalescents, as well as to some children.

I presume it is wholly unnecessary to say aught of the relative value of sucking-bottles, pap-spoons, &c., as means of administering liquid food.

Hominy (Indian corn, deprived of its siliceous exterior by steeping in lye), if soaked in cold water over night, subjected to long boiling, and then dressed with butter and salt, is a digestible as well as delicate dish. But for children, the smallest hominy, *i. e.*, *grits*, should be used; so, also, in the case of convalescents generally. The thorough cooking of these is the condition of their digestibility.

"*Mush*," renowned in verse as "hasty pudding," or fine white Indian meal prepared by very long cooking, salted, and dressed with milk, butter, molasses, or sugar, is a well-known and very important dietetic, often too much overlooked.

The same sort of preparation of oatmeal, "oatmeal mush," is often preferred, and rye-flour is equally in favor with others. Oatmeal is, to some, when used at supper, a positive laxative.

Gruels of the same materials are familiar. Less known are gruels made of *rice-flour* or *pulverized cracker*, or soda-biscuit. "Cracker-dust," ready-made for other purposes, may be em-

ployed conveniently for this, and produces a very good dietetic. Unbolted, or "Graham flour," may be used in like manner, thus securing a large amount of nutritious matter, in the way of gluten and phosphates, which are lost in preparing fine flour.

Bran-mush, well cooked, is often an acceptable dessert for the well, and may be dressed as suggested above, being, like other forms of bran-flour, laxative to the bowels. Thick, or thin like gruel, it may become a special diet for children.

Bran-bread, or Graham bread, is valuable for similar reasons, and is, like the other forms, in favor with dyspeptics who are constipated, on account of the mechanically laxative effect it exerts. So, also, *bran-crackers*. The same may occasionally be used for children, prepared in any of the forms in which ordinary bread and crackers may be given, of which we shall have something to say directly. *Bran-bread pudding* consists of the crumbs of bran-bread, over which has been poured boiling cream, sweetened to suit.

Rye-bread is suitable for rotation with other forms, or even as a main diet.

Plain panada is a primitive but often (when rightly made) very palatable diet. It should be prepared thus: Remove the crust of a slice of baker's bread a day old, break it small into a hot bowl, sprinkle with sugar to suit the taste, pour over this a liberal portion of cream or rich milk, and finally enough *scalding hot* water to cover the bread; *chop* it rapidly with a silver butter-knife until reduced to a fine, loose pulp (never mash it with the side of the knife or spoon), and allow it to stand until cool enough to swallow, when it should be eaten.

Crackers, sweet or plain, or other kinds of biscuit, dry or soaked in water or "cambric tea," buttered or not, are often invaluable.

Ordinary *bread and butter*, *bread and gravy*, and the like, when moist, often afford a good nutriment for even very young children, as most mothers are aware.

"*Unfermented bread*" and biscuit, *i. e.*, that made of dough without yeast, but charged mechanically with pure atmospheric air, may be preferred when common bread sours on the stomach.

Bread toasted, deprived of the crust, may be treated in a simi-

lar manner, and may prove serviceable if flatulence from decomposition of food, &c., be a symptom; and also for the mere purpose of rotation. But occasionally it causes such symptoms, when not already present, probably in the character of *carbo vegetabilis*. The ordinary milk-toast, cream-toast, or water-toast, with butter, may often be utilized in the case of children.

Zweiback, bread of the kind called "rusk," or "tea-buns" twice baked, that is baked in slices, is susceptible of minute division with ease, and may be used somewhat like cracker-dust, in a gruel form, or in panada or soups.

Sponge-cake, plainly made, is something which most children relish. A similar cake is "lady-fingers." Both of these may be given dry, or moistened, to almost any child, sick or well.

The youngest children, those who have no teeth, may be fed with comparatively strong food, if the mouth of a healthy person be employed to masticate it beforehand. The starchy part of bread, crackers, &c., is thus acted on by the saliva, and all substances perfectly comminuted before administration. Hence, a most important diet for a half-fed infant, sick or well, may often be found in *chewed cracker*, *chewed meat*, &c.

A child may, if not voracious, be satisfied by *sucking a cracker*, or a tough crust of bread, held to its mouth. The same may be said of meat cut into a strip, parallel with the grain, in order not to separate in chunks. But so brittle a substance as soda-biscuit should not be so used, lest, as I have witnessed, a small flake getting over the glottis, fatal suffocation occur.

A special use of flour is suggested by a plan I once saw illustrated by Dr. S. C. Hudson, Surgeon of the 26th Regt. Iowa Infantry Vols., for the administration of Quinine and other nauseous drugs. His process is as follows: A *batter* is made in the ordinary way; a *hot* smoothing-iron being upturned, a little is poured upon the surface, and a second applied upon this, held a few moments so as to fairly bake it; it is then removed by a knife. A section of this wafer is placed on a teaspoon, suddenly dipped into water, drained, the substance to be given laid upon it, the edges folded over so as to inclose it, when it may be laid on the tongue and swallowed with a little water. Now it occurs to me that certain not very palatable but nutritious

extracts may be given to older children at least, as well as adults, in this way.

Meats of various kinds are all-important in many cases of artificial feeding of infants, whether in fluid or more substantial form. They should be neither too young nor too old. Both are indigestible, and do mischief each in its own way. Mature but still young meat is valuable in various forms. Beef, mutton, and chicken may serve as types of all, and may be resorted to in rotation. Salt meats may sometimes vary the list.

Common soup has already been alluded to. Decoctions of the above are familiar as *beef tea, mutton broth,* or *chicken tea.* Farinaceous or other addenda are sometimes employed.

Beef extract (often misnamed beef tea) may be prepared fresh, or its partial equivalent obtained from a roast joint when cut. It is best made in a good-sized clean bottle, putting finely divided beef within it, corking tightly, and boiling the bottle in water for some time. The liquid is then poured off, and a trifle of salt should be added. Salt put in at the beginning of any such process, may become so concentrated as to render the extract or the decoction unfit for use; and even without this, the natural salines may occasionally do the same.

The *concentrated beef extract,* so commonly sold, is, when not objectionable to the taste, of great use. In wafer-capsules it may be made applicable in still other cases, perhaps. This is sold as Liebig's Extract of Beef; sometimes under other names.

Cold infusion of beef, salted slightly, may prove agreeable as a diet drink when such temperature only is acceptable. The process of percolation, *a la café Francaise,* may be applied by non-metallic apparatus to finely-divided meat, the product being kept surrounded by ice; or being finely divided and pounded in a crash-cloth, it may afterwards be subjected to a strong press, a little water added to the residue and pressed again, just as in the preparation of the fruit syrups.

Meat, raw or cooked, may be *scraped,* so as to afford nourishment for an infant; or it may be finely *hashed,* as if for sausage. The latter may be reinforced by potatoes, &c., when not contra-indicated by diarrhœa. The great danger is that the comminution may be imperfect. This must be guarded against.

Damascene preserve consists of raw beef chopped and pounded, along with white sugar, until finely comminuted. This has proved a life-saver in many instances. The one doubt of its value lies in the possible presence of parasitic germs (as of tænia) in any form of raw meat.

Frying, as a method of cooking, is generally objectionable, but meats *broiled* or *roasted*, are good, the latter especially. A close utensil, such as a "Dutch oven," which retains every particle of vapor, is economical of the volatile principles, and hence secures the choicest product; which may then be employed in any of the ways herein alluded to. The same instrument bakes the best Indian-corn bread. An excellent temptation to appetite is found, often, in a *wafer of beef*, the thickness of cardboard, cut across the grain, carefully broiled, buttered, and slightly salted, and for a little child, *very finely divided.*

Stews and *fricassées* are adapted to those who can chew, when convalescent, and to whom the peculiar flavor of a roast may be disagreeable; or in the way of rotation, very fine hashes may suit some who cannot masticate.

Desiccated meats, i. e., with the moisture completely evaporated, may be sometimes utilized, being easily grated, and containing in this state a large proportion of absolutely nutritious matter. This may be given like the beef extract, in hot water, or dry, in a suitable vehicle, as the wafer, or jelly, or stewed fruit, which may be punctured to insert it, small masses at a time.

Any form of meat diet is of doubtful propriety, to say the least, in typhoid fever, when the urine is without sediment. And in ulceration of the bowels, any solid food may cause perforation and fatal peritonitis; whilst ice-cream has killed a convalescent by intestinal hemorrhage.

Fish have a certain value in the dietetics of childhood, as well as of older persons. Fish without scales are to be generally eschewed, but this leaves a long list of scale-fish, which admirably fulfil the requirement of organic and inorganic elements of nutrition, especially in nervous exhaustion; phosphorus being prominent among the principles thus afforded—and in a state prepared for assimilation. Being easily picked to pieces, a young

child can take it. Rock-fish, boiled, and dressed with drawn butter, broiled or "planked" shad, perch, &c., are prominent hereabout; and the cosmopolitan "Digby herring" (a very small smoked fish), eaten raw, often proves a capital appetizer.

Shell-fish, *i. e.*, *oysters* (rarely clams), are often a boon. The juice or the soup of a plain stew, with cracker or otherwise, may be the initial form; afterwards, the tender portion of the oyster itself. In stewing, the juice is to be first cooked with milk and salt, and the oysters added when it boils, letting them remain on the fire only until heated through. Thus they remain tender.

Oyster-hash, very fine, made only of the tender portions of such stewed oysters, may be given when that form is most manageable. Even a fried oyster may sometimes be chewed very fine by the mother of a sick or badly nourished child, and prove in this state a grateful and digestible diet.

But one of the most precious hints I have ever received in the matter of diet, was derived from a half-nourished babe, in the presence of a plate of raw oysters. It made such violent demonstrations of craving for them, that the mother, holding a fine one by the tough muscular portion, allowed the child to suck the remainder, which it thus demolished in a short time; and by acting on this hint, the difficulty in its case was bridged at once. I have since repeatedly prescribed the same, with excellent effect —even in adults, who, whilst unable to *eat*, could yet *suck* a raw oyster.

Eggs, in various forms, are another staple. They contain (the yelk especially) all the essentials of nutrition. In addition the raw yelks are both a preventive and palliative, to some extent, of cough, sore throat of public speakers, &c. Beaten up with brandy, they are a potent remedy against hungry faintness, in many cases of overworked mind or body; sometimes preferable to tea, coffee, or malt liquors. But to return to infants' diet.

Allusion has already been made to raw yelk and cream. It may be given by the mouth, a teaspoonful every half hour or hour, *as a dose*, when there is unwillingness to eat it. An enema of a wineglassful or less may be given every two or three hours, when it is refused otherwise, and it will nourish almost as well

in this way, being fully absorbed by the rectal mucous membrane.

Hard-boiled yelk of egg is fairly digestible and may be mashed with a little butter or cream, and salt, and given in doses. This, or any other semisolid substance, may be given diluted with water, cream, &c.; or to older persons in the wafer, if not acceptable in the original form. Continuous compulsory nourishment is in many low states of the system an essential condition of saving life. Small in quantity, wholly and comprehensively nutritious, such doses are often particularly useful; and, in rotation with other articles, as (in the absence of fever or at least when the urine is capable of forming sediment) beef tea, beside prepared wheat or barley, &c., may enable us to carry the patient over some very dangerous places.

In cough cases, intestinal disturbance, &c., *white of egg with water*, kept cold by setting in a bowl of ice, and given in sips, is often a palatable demulcent and nourishing drink. Or, if a high temperature be wished for, it may be first mixed with very warm (not boiling) water, and set in a hot-water bath on the stove or nursery lamp.

Egg-soup is the same as the last, with the addition of the partially beaten yelk; and in this case a little salt will be desirable.

The ordinary *soft-boiled egg*, especially with bread-crumb and a little butter and salt, is a frequently available diet for young children.

Plain custard, i. e., egg, milk and sugar, without spices, may sometimes prove an agreeable form.

Fruits, recent and dried, are useful adjuncts to other food, affording a vehicle, or it may be a dressing, for less palatable things. Perfectly ripe, sound, well-flavored fruit, deprived of skin and core, is much more rarely hurtful than is often supposed. If even it should prove indigestible, as when eaten with imperfect mastication (as ought to be expected), attention to this point may obviate the trouble and secure positive benefit. A very simple and easy method of administration consists in scraping the pulp with the end of a silver knife, and placing upon the child's tongue. There is a general laxative impression to be anticipated, however, from the use of fruit. Apples, bananas, or other suc-

culent forms, eaten at bedtime, are a favorite resource with many costive persons. Dried figs or raisins, roasted or stewed in milk, have a value other than dietetic, as in cases of immature gumboil, to which they may be usefully applied (within the mouth) as a poultice, after splitting. Again, ripe fruit may be mashed and strained through a coarse medium, as cotton lace, thoroughly cleansed from its stiffening material or sizing. Jellies may be prepared from this by the addition of sugar and gelatin, and kept ready for use. No metallic substance should, if avoidable, be brought in contact with the fruit. *Stewed fruits* are often a convenient, agreeable and somewhat laxative diet—prunes especially; although I prefer the dry, uncooked prune, freely eaten, for this purpose. *Canned fruit* is often a good substitute for the fresh, but glass or stone jars are better than metal cans. The juices of new fruit made into *syrup*, are of great value in the preparation of drinks for the sick. *New cider*, new wine, or other natural juices, set in ice, may prove grateful drinks. These may be varied occasionally with *toast-water*, preserved in like manner. This is good only when the untoasted portion does not come in contact with the water, and when the bread is really *toasted, not charred* in any degree. Slices as large as a man's thumb, of baker's bread a day old, toasted just brown on every side, are to be steeped in cold water until the latter is sufficiently colored; then carefully lifted out without breaking. This is real toast-water. "*Crust coffee*" resembles this, but is made with good crust of bread and hot water, and may be used as ordinary coffee.

Wheat coffee, rye coffee, &c., made of the roasted grain, so familiar in war times, may be used by the sick as substitutes for genuine coffee, with or without the addition of a trivial flavoring of the latter. Like the real coffee, and tea as well, they may be used hot, with or without sugar and cream; or, again, may be iced, as many epicures prefer in the use of these their favorite dietary stimuli.

The goal we seek in the case of infants who are incapable, from retarded dentition, of masticating the solid food which their age and size seem to require is, the completion of this process at as early a moment as possible; after which, we may rest easy, in

most cases, on the score of their nutrition, unless suffering from some fit of sickness.

Certain dietetic preparations, as Castillon's Powder (often corruptly called Castilian Powders), are composed of farinaceous substances, with an appreciable quantum of calcareous matter. My preference is decidedly in favor of giving the food and medicine separately. Ordinarily, I find satisfactory results, *i. e.*, the speedy cropping out of a full set of teeth, from persistent attention to the foregoing considerations as to diet, with a weekly dose of *Calcarea phosphorica*, first decimal trituration, at bedtime. When the gums begin to swell, like the buds of a tree in the spring, the medicine has done its work, and may properly be withdrawn. Should the irritation be excessive, *Gelseminum* may have to be given, or perhaps *Aconite*, *Chamomilla*, or *Belladonna* instead. But the withdrawal of the nutrient stimulus will commonly settle all trouble shortly.

In this connection, I cannot but say that with this policy I am able almost uniformly to avoid lancing the gums; if, indeed, this be not essentially erroneous, as liable to injure the matrix of the growing enamel and as causing inflammation in the track of the lancet without hastening the eruption of the badly nourished tooth a single hour;—only excepting those cases in which, the child being convulsed, we find a molar half covered by the gum-tissue, this being the *punctum saliens* of the spasm or other brain trouble.

A moment's reflection will show that as *the tooth is erupted because it grows*, particularly at the root, where it pushes against the jaw-bone, therefore, lancing attacks the trouble at the wrong end, and that the true policy is to stimulate the nutrition of the tooth at its papillary or root portion, whereby the whole tooth will be prospered, becoming a normal, and no longer in any degree a foreign body.

XX.

THE NERVOUS SYSTEM.

By J. D. Buck, Cincinnati, O.

Since the time when physicians began to distinguish between nerve-fibres and tendons, knowledge concerning the structure and functions of the nervous system has been steadily advancing, while the various modes of investigation, and the theories concerning structure and function, have been from time to time radically changed.

At all times this knowledge, like that on most other subjects, has been derived from two principal sources, viz., by experiment, resulting in demonstration, and from inference, conjecture, or deduction, resulting in certain theories. What we term the advancement of science, is neither more nor less than the encroachment of the first of these, demonstration, upon the latter, although accompanying this encroachment is an extension, modification and readjustment of theories. That which has been proven by demonstration is forever beyond the field of conjecture. The limit of demonstration reached at any time, is the boundary from which theories are projected, and as by experiment and careful observation this boundary is being continually extended in all directions, the folly is continually being made apparent of regarding any conclusion as final.

The mind of man is formed for advancement. "Its law is progress; a point which yesterday was invisible is its goal to-day, and will be its starting-point to-morrow."

Elated by success, in the flush of victory over the secrets of

nature, the human mind is prone to repose at the wayside inns of knowledge, as at a final resting-place; but with renewed energies comes that unrest which is continually urging us on to fresh conquests. If there be a limit to these conquests, it lies in the lethargy of the soul that has spent its force. The limit, therefore, applies to the individual, and not to science, and one individual, one generation, takes up the investigation just where another has laid it down. To many minds, this uncertainity of final conclusions is consonant with uncertainty of knowledge, hence opinions are regarded as sacred, and their overthrow as sacrilege, when *truth* alone is sacred, and however much opinions may differ concerning it, the only fealty lies in seeking it continually. Like the fabled shield, truth is often many-sided, and has wider bearings than most of us conceive.

The twitching of a frog's leg in the experiments of Galvani has revolutionized nearly every department of science. From this simple experiment has arisen among other things the electric light, which by the aid of the spectroscope has not only increased our knowledge of the earth we inhabit a thousandfold, but which has brought to our knowledge the geology of the stars, and all the chemical train of stellar phenomena. The demonstration, in later times, of the correlation and conservation of force, has worked even greater revolution.

Aside from the demonstration of facts in physics or organization, these far-reaching discoveries have given rise to different modes of investigation beyond the plane of demonstration, and have very materially modified current thought and theories. To judge of present investigations without the aid of these discoveries, is to attempt to read a hidden or unknown language, without a knowledge of its alphabet.

With the old nomenclature many of the chemical problems of to-day are an absurdity, and with the old ideas of the destruction or annihilation of matter and force many of the problems in physics and physiology are equally absurd. To judge correctly of any age, its history, its ethics, or its science, we must be able to live for the time in the light of that age. Judged by the light of the present, the ancients were superstitious idolaters; but could we resurrect the Alexandrian library, and all the "lost

arts," we should find left but little room for boasting. If the scientific investigations and modes of thought of our own day were viewed in the light of the past, we should be skeptics, infidels, atheists. From all this we learn that the human mind is continually changing its attitude, and increasing its range of vision; and that while theory and speculation pertain to the human mind, the demonstrations of science pertain to truth.

Whatever progress men may have made during the last century, for instance, we have no reason to believe that bodily structure or functions have materially changed, or been essentially altered; and yet how diverse have been the theories concerning both structure and function! And if to-day, when experiments have been pushed farther than at any other time; when, however much remains uncertain, more is actually known concerning organ and function than at any other time in man's history; when, in addition to all this, all other departments of knowledge have been revolutionized, and a readjustment here seems necessary, is it strange that a different interpretation should be put upon phenomena, and that new theories should be projected from broader fields of actual knowledge?

That which is actually known concerning the nervous system has been derived by dissection and vivisection of animals, and by dissections and pathological observations of the human body.

Comparative anatomy had a very early origin. Before the time of Galen, the children of physicians, and those dedicated to the pursuit of medicine, were taught to dissect as they were taught to read, while children, and were as familiar with the scalpel as with books.

Dissection of the human body was begun at a much later day. In early times it was considered profanation to touch the dead, and to mutilate a dead human body was regarded a crime; and even when in the early part of the thirteenth century human dissections were begun at Bologna, the cranium was not opened, through fear of committing a "deadly sin." But as one extreme is likely to follow another, we find three hundred years later the medical school at Montpellier receiving its annual tribute of a criminal to be dissected alive for the benefit of science.

The sole knowledge of organic structure possessed by the

early anatomists was derived from the dissection of animals, and even now when the structure of the various parts of the human body is tolerably well known, the structure and functions of the bodies of animals is of incalculable value to the anatomist.

Organs in man, like the brain and nerve-centres, the complexity of which renders their study difficult in the extreme, may easily be studied in their less complex form in lower animals.

It is a fact in zoology, that a selection of organisms may be so arranged as to form a continually ascending series from the lowest living organism up to man, with the separate organs appearing at first rudimentary, and finally fully developed. Whatever theories may be erected upon this biological fact, the fact nevertheless remains. Whether one species of animal ever merges into another, is a distinct and separate proposition, not only hotly disputed, but undemonstrated, and for aught we know may ever remain a mystery.

The dissection and microscopic examination of histological elements in men and the lower animals, reveals a marked correspondence in structure. The fact is also revealed, that the development of an organ corresponds to the range of its functional activity, development referring to complexity of structure and differentiation, rather than to mere size or weight. The functional activity of a large organ of but little complexity of structure refers rather to quantity, while that of a complex organ, whether large or small, refers rather to quality, to range, and diversity. For example, the cerebellum of the whale is much larger than that of man, and in muscular strength man is excelled by many lower animals, but man excels all animals in the extent and variety of his muscular activities, and in control and co-ordination of voluntary motion, as his cerebellum is more complex in structure.

Dissection has hitherto revealed no organ or tissue in man that is not found in the lower animals, and not only are all the so-called organic functions performed in a similar manner, by similar organs in either case, but the correspondence holds good with regard to the special senses. The structure of the eye and ear is essentially the same in men and animals, and the waves of light or sound seem to operate in a similar manner to produce

vision or audition; the difference observed in any case being one of degree in complexity of structure and range of function. The character of light and sound, the principles of optics or acoustics, and the correspondence of structure demonstrate the correspondence of functions. That with similar organs in men and animals, the organic functions, and those of the sensory ganglia, should be declared to be similar in kind, differing only in degrees, seems to excite neither apprehension nor surprise, but when a similar analogy is pointed out in the brain, it is met with bitter denunciation. One by one the results of experiments on animals are being verified by pathological observation on the body of man. One of the roots of a spinal nerve is severed in an animal, when loss of sensibility or of motion in the part to which it is distributed supervenes. By accident a vertebral process is fractured in man, and a spicula of bone presses on the corresponding nerve-root, when a condition of paralysis follows, similar to that produced by severing the root in animals, thus demonstrating the fact that correspondence of function follows similarity of structure. In no single instance has the reverse proven true.

The separate distribution of motor and sensory filaments may be traced in the cord and somewhat above the medulla oblongata, and the conversion of sensation into motion, by reflex action, may be observed; but that portion of the brain lying above and anterior to this, which is more complex in its structure, and which has been shown to be the seat of intellectual operations, is not so readily comprehended. When the sensory and motor tracts can be no longer distinguished, and when, in place of the external fact or excitation, the stimulus to action is complex, when moreover functional activity or modes of motion are interstitial rather than internuncial, the problem becomes more complicated; yet, as in the other portions of the organism to which reference has been made, the correspondence between the cerebrum of men and animals also holds good, and that mode of investigation which has been so fruitful of results elsewhere is the only one which promises anything definite here. What comparative anatomy and physiology have done for human anatomy and physiology, comparative psychology will do for human psychology, and in fact is already doing.

Each of the so-called nerve-centres is a centre of co-ordination; from the simplest sympathetic ganglion to the cerebrum, there would seem to reside in the nerve-centre a regulating, adjusting, balancing power, with this difference, that while the action of the lower centres would seem to be automatic, mere servants, doing the bidding of a master without knowledge of either the means or the end in view, it is from the cerebral centres that the conscious will proceeds. The plan of government would seem to be, according to our highest conception, autocratic; and the association, one of both class and caste; for as regards both material and functional endowment there is a regular order of gradation from the most simple to the most complex centres. The sympathetic centres co-ordinate the organic energies of the system, but the sympathetic system is itself co-ordinated by the spinal system through connections established in the ganglia at the roots of the spinal nerves. Again, the spinal system of nerves co-ordinates voluntary muscular motion, the central ganglion being the cerebellum; but this spinal system with the cerebellum is itself under direct surveillance of the sensory ganglia, the mere animal impulses inciting to action. Again, these sensory ganglia are under control of the cerebral centres, and co-ordinated thereby. We have then a natural order: first, the organic; next the excitant or motor; next the emotional or sensational, and finally the intellectual or spiritual. In the lowest order, the organic, the nervous system has not been shown to institute or create a single function. Digestion is a chemical and mechanical process. Circulation is due largely to chemical action and capillary attraction. So also in regard to muscular contraction, which may be excited independent of the nerve, and even for some time after death, by electricity.

The nervous system does not originate circulation, but simply controls or regulates it; does not originate muscular contraction, but regulates and directs it. The co-ordinating action of the nervous system is often seen in disease, and is here the conservating power.

The cause of disease, always obscure, is sometimes intangible, as mental emotion, excessive joy or grief, a shock is precipitated on the brain, which sometimes causes death. At other times the

shock is distributed more or less equally over the system, or allowed to settle on some less vital part, there to spend its force without serious injury to the organism. All are familiar with the effect of fright on children, and the precipitation of the shock upon the bladder. I have known numerous instances where diarrhœa would result almost instantaneously in adults from mental shock. Were the nerve-centres unconnected by commissures, and each so organized as to be able neither to give or receive support and assistance from the other, disastrous results in all these cases would be multiplied. There would seem to be a conservative relation existing between the organism and the nervous system. If the nervous system relieves itself at the expense of the organic functions, the organism is preserved by the nervous system, which bears a relation to the functions of the body similar to that which connective tissue bears to the tissues. By connective tissue in its various modes of development the organs of the body are bound together, so that while fulfilling their destiny as organs, they likewise help to make up the organism as a whole. Now, while it is admitted that the nervous system cannot institute any organic function, it nevertheless assigns to each its due proportion of functional activity in harmony with the functions of the organism as a whole, and when that is invaded it distributes the lesion over a larger surface by reason of the intimate communication with every part through the nerve-tubes or fibres. Most diseases are functional in their character; take fever, diarrhœa or dysentery, for example. No function or manifestation entirely new to the system is present, nothing different in *kind* from the normal state, but a change in *degree*. The pulse-wave is increased or impeded, osmosis or capillary attraction changes its direction or intensity from a change of conditions, and it is just here that the conservative power of the nervous system is available. The theatre of disease in these cases is also the theatre in which the nervous system especially operates. Functional diseases disturb functional activity. The nervous system regulates functional manifestation. To do this, the whole nervous mechanism may act. The brain directing intelligently certain compliances, the sensory ganglia ministering to the protection and regulating the external contact, the spinal system co-ordinating the

active energies, and the sympathetic system regulating interstitial change and functional activity of the organs.

The nervous system then is the mechanism by which co-ordination is brought about and maintained, and yet the nervous system may itself become diseased. Nerve-tissue cannot be conceived as possessed of innate intelligence any more than muscular tissue. Each is governed by the same laws of waste and repair. The same thermal laws apply to each, and the energy which the nervous mechanism displays is correlated into muscular energy, or muscular action may conduce to nervous energy.

The nerve which transmits the impulse to the muscle is itself changed by the transmitted impression. Mr. Spencer has shown that each successive impulse is transmitted with greater facility than previous impulses, with less resistance from the nerve colloids, until finally an equilibrium is established, when we have the greatest facility of transmission, the least resistance, and consequently an end of development.

Viewed in this manner the nervous system, like the muscular, is passive; it only acts as it is acted upon, or is excited to action; and so far as actual experiment has yet gone, and in regard to the organic functions of the body, but more especially in regard to the reflex action of the spinal cord, this is demonstrated to be true; the objection always preceding the subjective impression, and reasoning from analogy of structure, and from experiments on lower animals, the action of the brain would seem to be as automatic as that of the spinal cord, with, however, greater complexity of manifestation, corresponding to more complex structure. Such a supposition in the absence of positive proof, which may for some time be wanting, conforms to the latest researches in physiology, and presents a line of investigation promising the widest results.

SECTION VIII.

REPORT

OF THE

BUREAU OF PSYCHOLOGICAL MEDICINE.

J. H. P. FROST, M.D., ... Danville, Pa.
G. F. FOOTE, M.D., ... Stamford, Conn.
C. PEARSON, M.D., ... Cleveland, O.
C. G. RAUE, M.D., ... Philadelphia.
GEORGE W. SWAZEY, M.D., ... Springfield, Mass.

TO THE

TWENTY-SIXTH SESSION

OF THE

American Institute of Homœopathy.

VOLUME I. NUMBER 2.

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III. The Importance of Mental Symptoms in our Provings and Prescriptions, ... Clement Pearson, M.D.

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II.

VITAL DYNAMICS.

INTRODUCTORY TO PSYCHOLOGY.

By J. H. P. Frost, M.D., Danville, Pa.

"La filosophia medicale non può se non ricever benefizio dalle nostre dispute; perchè se i nostri pensieri saranno veri, nuovi acquisti si saranno fatti; se falsi, col ributtargli, maggiormente Verrano confermate le prime dottrine."—Galileo.

"Harum indigatio subtilitatum, etsi non est utilis ad machinas farinarias conficiendas, exuit animum tamen inscitiæ rubigine, acuitque ad alia."—Scaliger.

"L'erreur dans laquelle sout tombes des hommes aussi recommandables par leurs lumières, m'a Seule déterminé à rendre publiques ces considerations sur une des questions (de physiologie et de psychologie) les plus delicates et les plus difficiles."—Esquirol.

In an article published some years ago, reference was made to the *conservation* of the forces of physical nature corresponding to the indestructibility of matter, and to their *correlation* with each other, and with what are termed vital forces.* In a subsequent paper was implied, rather than distinctly affirmed, the *inseparable union of matter and force;* this principle being necessarily involved in the example there given of the homœopathic high potencies, in which the forces and qualities of material substances "are more and more fully developed the further the process of attenuation—approximate reduction to primary atoms—is car-

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* "Forces and Forms of Life," by J. H. P. Frost, M.D.; Hahnemannian Monthly, vol. i, p. 35.

ried."* The present paper, in continuation of previous physiological reports,† and containing a practical application of the principles therein advanced with reference to the "natural dynamics" of physiology, is intended as an introduction to the study of its "supernatural dynamics," or psychology. For psychology not only includes the doctrine of the soul as connected with the body and influenced by physical nature, and the doctrine of the body as influenced by the soul; but it also involves the doctrine of the soul as related to still higher and purely psychical existences, and as impressed by the supernatural or spiritual world with which it is surrounded.

Whether organic or inorganic, animate or inanimate, *the forms of nature* are never destitute of certain inherent forces.‡ Whether manifest or latent, active or passive, the *forces of nature* are never without some corresponding forms, in which they are developed, and through which they become operative. Always and everywhere in nature exists, therefore, *a union of matter and force;* a union alike absolute and *inseparable* in her lowest and in her highest spheres,—in the primary atom and largest celestial globe, and in the primordial cell and ultimate human being. In nature a vital principle separate and apart from the (living) organism can no more be found, than a principle of gravity apart from the material substance that gravitates.§ And these three great prin-

* "Materialism and Science," by J. H. P. Frost, M.D.; Hahnemannian Monthly, vol. iii, p. 56.

† "Reports on Physiology," by J. H. P. Frost, M.D.; Transactions of the American Institute of Homœopathy for 1868 and 1869.

‡ This principle was well known to the ancients. Cicero, speaking of one of their Schools of Philosophy, says: "De natura autem ita dicebant ut eam dividerent in res duas: ut altera esset efficiens, altera autem quasi huic se præbens, eaque efficeretur aliquid. In eo, quod efficeret, vim esse censebant: in eo autem quod efficeretur, materiam quandam: in utroque tamen utraque. Neque enim materiam ipsam cohærere potuisse, si nulla vi contineretur, *neque vim sine aliquo materia.*"—*Acad. Post*, vi.

The same doctrine is well expressed by an old English writer, in the following words: "Motion is essential to matter no less than extension; matter neither ever was, nor can be a sluggish, dead, and inactive lump, or in a state of absolute repose."—MR. TOLLAND, "Letters to Serena." London, 1704.

§ "Gravitation is a property of matter dependent on a certain force, and *it is this force which constitutes the matter.*"—FARADAY.

ciples—*the indestructibility of matter*,* *the conservation of force*,† and the *inseparability of matter and force*—constitute the triple basis of physical science; as this latter again becomes the foundation of physiological knowledge, and this last prepares the way for psychological investigation.

The inseparability of matter and force shows the fallacy of such statements as "the direct medicinal action of a drug is always exerted upon the functions;"‡ an assertion which may also be disputed upon other grounds, since it involves the absurdity of affecting a physiological *office* or function, without primarily affecting the physiological *officer*, or organ! Here, as elsewhere, we can neither separate inorganic matter from the actual force with which it is endowed, nor the organizing power from the organized material in and through which it works. This principle proves the inconsequence of such reasoners as Vanderburg§ and his commentators,‖ who, adhering to the allopathic dogma exploded by Hahnemann, *personify disease*, and ask, "What relation can by any possibility exist between disease as a force, and crude masses of drugs?" Such persons, professed homœopaths, in their eagerness to be wise above what is written by the Master of their Art, forget, on the one hand, that disease—whether considered "as a force," or as a more material entity—has really no existence outside the organs whose functions are disturbed; and, on the other hand, ignore their own subsequent doctrine that, "Every drug is but the outward material form of a force peculiar to itself."

The same principle of the inseparability of matter and force, reduces to the logomachy of the Academy and the Porch, not

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* "That alone in matter which is indestructible is its indwelling power."—SCHELLING.

† "For no force that once is in nature can be lost, but must have its adequate effect one way or other." So wrote rare old Sir Kenelm Digby, more than two hundred years ago. "Two Treatises: in the one of which, the Nature of Bodies; in the other the Nature of Man's Soule is looked into: in way of discovery of the Immortality of Reasonable Soules." London, 1645 (original edition, in small quarto, chap. ix, p. 92).

‡ Hahnemannian Monthly, vol. vii, p. 299.

§ Vanderburg, F., M.D., "Geometry of Vital Forces."

‖ U. S. Med. and Surgical Journal, vol. iii, p. 24.

only the Nominalist and Realist disputes of the scholastic ages, and the subsequent discussions of the "vital principle;" but also much of the more recent wrangling about "dynamic power," an expression severely criticized in a late periodical.* Without stopping to fortify this term by Hahnemann's "dynamic influence," the eminent physician who employed it might have replied to his critic, that in the phrase "dynamic power," the former word refers to force, *in posse*, or latent, and the latter word to force, *in esse*, or manifest; and that both thus taken together may very properly represent the *essential force operating in its indispensable form.* The term *dynamic* has been usually understood, however, to express an immaterial force akin to spiritual power, which latter is what is intended by the original Greek.† And this phrase, "dynamic power," may, therefore, be properly used in opposition to *material influence.* We employ the corresponding substantive, *dynamics*, in a general sense, as including all the forces, physical, physiological, or vital, and psychological or spiritual, which are found in nature, and which enter into the composition of man.

Pythagoras taught that "matter is one in itself, and that the different configuration of its parts forms what we call the elements."‡ According to a recent philosopher, "What matter is we may analyze forever,—we may divide it mechanically, or chemically; we never get further than the surface of bodies."§ But such speculations are as unsatisfactory as they are unprofit-

* U. S. Med. and Surgical Journal, vol. iii, pp. 388–390.

† Epistle to the Ephesians, 6 : 12.

‡ "La Vie de Pythagore," par M. Dacier; Paris, 1706. With the exception of Plato and Aristotle, the Greek philosophers have been charged with teaching the eternity of matter. Like Philo Judæus, they seemed to regard matter and force as the *two ultimate elements* of *necessary* existence; the more enlightened having a vague idea that force must have existed before matter.

Sanchoniathon, who, before the Trojan war, wrote about the affairs of Phœnicia, ascribes the origin of all things to chaos and spirit; and in this statement we may trace the influence of the books of Moses, Genesis especially, from which he has even been supposed to have derived a great part of his information. He teaches also that these two principles are destitute both of beginning and end.

§ Schelling, "Abhand. Phil. Schriften."

able. For all practical purposes matter is not one, but various; and not to be considered, even in thought, apart from the force which it contains.* In like manner some among the moderns conclude that "all the forces which are operative in the material world are but different manifestations of the same force," of which electricity may be taken as a type. Others, again, affirm that life, or the vital principle, is analogous to if not identical with electricity. But variety, similarity, yet not identity, is as characteristic of nature in her lowest forms, as *individuality*† is of her highest personal creations; both substances and forms being understood to include always and inevitably the forces and powers which pervade and inspire them. Thus all attempts to consider the vital principle apart from the organism are seen to involve a fallacy which must vitiate all the reasoning, speculation, and definitions which may be founded upon them.

Animate forms as truly belong to nature as do her inanimate or inorganic substances, and the vital powers which sustain the former are as really natural as the physical forces contained in the latter. Both are alike originally derived from the one Supreme Source of all power and all life.‡ Equally with the physical forces, therefore, the vital powers constitute the endowment of nature, and the absolute indestructibility of the former finds its counterpart in the essential perpetuity of the latter. Inorganic substances are apparently destroyed, and their forces seem to vanish away; when, in reality, new forms of matter replace the one, and new modes of force the other. In like manner organized bodies and animate beings appear to perish; but their vital spark has already been transmitted, they survive in their successors, and their race remains.§

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* "Matter fills space *by virtue of its forces*, but does not occupy it."—BOSCOVITCH.

† Coleridge was so deeply impressed with this essential relation of *individuality* in the higher forms of creation, that he says: "I define life as the principle of individualization."—"Hints toward the Formation of a more comprehensive Theory of Life," by S. T. Coleridge. London, 1848, p. 135.

‡ On the Relation of Secondary Causes to Religion and Philosophy; see Maclaurin's "Account of Newton's Discoveries," quoted in Baden Powell's "Connection of Natural and Revealed Truth." London, 1838, p. 292.

§ Some insects expire with the completion of the reproductive functions.

If there are physical forces in nature, therefore, so also must there be vital powers. And as the former are correlated with each other, and apparently converted into the latter; so are the latter, the vital powers, also correlated with one another, and, in their turn, seemingly converted into others still higher. And just as physical forces require a material *substratum* as the medium of their mutual correlation, so also do vital powers necessitate an *organized structure* as the means of their conversion from physical forces, and functional correlation with each other. But the organized structure can no more be termed the agent of the conversion in the one case, than the material subtratum can be called the cause of the correlation in the other.

Physical and even vital powers are often spoken of as influences—material or dynamic—which may be considered separate and apart from the substances and organizations to which they belong. But such abstractions only serve to lead the mind away from the reality of nature, and thus involve us in error. It would seem to be as logical to say that vital powers differ from physical forces, as to say that organized bodies differ from material substances. Yet all our ideas of physical force are derived from witnessing the natural results which are produced; and all our notions of vital powers are equally dependent upon our observation of the living bodies they inspire. In our inmost thoughts, therefore, physical and vital forces are as inseparable from the substances and organizations they affect as they actually are in nature. How different these two classes of forces are, and at the same time how inseparable from their respective forms, may be seen in the following statement of a late writer, who is at once ingenious and learned,—a statement which may be correct as far as it goes, but which must not be accepted as a final definition of life: "A special structure, the organized body, or its microscopic representative, the isolated cell, has the peculiar property of transforming inorganic physical forces, such as heat, light, &c., into organic, vital forces."

All the various organizations—cell-germs or entire bodies—which are developed in connection with this dynamic conversion, are still subject to the former physical forces, such as gravity and magnetism, except in so far as these are overruled by the higher

vital powers. And the previous inseparable union of physical forms and forces is continued even when these forces are apparently converted into superior vital powers. Everywhere is seen the operation of that beautiful *law of continuity* to which Leibnitz attached so much importance.* In nature are no sudden leaps or breaks; even when her forces are converted into higher powers, and inspire more elaborately organized structures, there is still a gradual progressive ascension.

By reason of this it is that the foliage of ferns growing in the fields to-day, is exactly like that found in the petrified remains of primæval vegetation, and both in a remarkable manner resemble the display of frost-work on the window-panes in winter. So the hexagonal shape of honeycomb-cells with wonderful accuracy corresponds to that of crystals which may be thousands of years old. In the same manner germ-cells, the primordial forms of all organization, as well animal as vegetable, are globular, like the primary atoms and all the globes of the universal sphere. The *circular movement* of all bodies mechanically put in motion, of all the solar, planetary and stellar orbs and celestial systems of the starry heavens, of the juices of plants and blood of animals, and the corresponding *orbital revolution* of every atom of the fluids, and every individual of the solid spheres, as well as of all substances falling through the air, still further illustrate the inseparable union of matter and force, and prove the dynamic correlation of the vital world with the physical. This inevitable *correlation* of all the forces of nature impressed itself upon the minds of the most profound of the ancient philosophers, and became for them a ladder of connection between time and eternity. According to Plato: "As the visible rolling heavens correspond to that soul of the world of which it is the outward image, so is time an image of eternity."† Proclus more

* "C'est une de mes grandes maximes, et de plus verifieès, *que la nature ne fait jamais des sauts. Natura non agit saltatim.* J'appellois cela la loi de la continueté, et l'usage de cette lois est tres considérable dans la Physique."—LEIBNITZ, "*Nouveaux Essais.*"

† "He thought to make a *moving* image of the fixed eternity, and as he arranged the heavens, eternity itself remaining forever in unity, he made an image of eternity *to proceed by number*, the same which we call time."—PLATO, in Timæus.

plainly expresses the same sublime sentiment: "Time, by reason of its imitation of eternity, is said to move in a circle; as the heaven, on account of its being an image of the infinite mind, moves in a sphere."*

A mystery the most recondite involves the relation of the vital powers to the physical forces from which they are apparently derived. But this mystery can never be unfolded by insisting upon the combination of physical forces as alone productive of those which are vital. Two or more Corinthian columns may be architecturally combined; but that will not crown them with a corresponding capital. The key to the mysterious problem of relation—where of correlation or of conversion—of the physical to the vital forces, must be looked for in the direction of the inseparability of form and force in nature, and also *in the direction of the origin of life.* In the *inorganic world* this inseparability is well illustrated by the invariability of the angles of different crystals. The measurement of the angle by an instrument, the *Goniometer*, designed for this purpose, will determine the kind of mineral in the greater number of cases, especially when it is reduced to its primary form by cleavage.† Here we seem to see only a "blind force," working with wondrous uniformity, with geometrical accuracy, in the dark. Yet who shall determine the elements of the force or combination of forces which invariably crystallize some minerals as cubes, others as rhomboids, and others again in forms still more complicated—each at an angle peculiar to itself?

In *the organic world* the same inseparability of form and force, and consequent indestructibility and identity of the forces themselves in each case, are displayed in perpetuating the similar organized forms in which the various plants and animals successively appear, each "after his kind." Here every distinct species of inanimate organization, and every separate race of animate beings, has its own typical form, which is followed, not indeed with the mathematical exactness of inorganic nature; but with

* Proclus, a Platonic philosopher and learned commentator on Plato, was born in Constantinople, A. D. 412.

† The exceptions—dimorphous, isomorphous, and pleisomorphous substances—by contrast prove the truth of the general law.

variations, variety in unity, which cannot but enhance our admiration of the apparently intelligent forces by which they are produced.

Vital powers, seemingly derived from physical forces to which they are at once related, antagonistic and superior, are common to the organized forms and animated bodies of nature; but differ in these two classes of natural creation, both in kind and in degree. What then is life? What is its origin, and *what are the vital forces?* Before attempting to answer these questions, let us study the previous explanations and definitions of life, in the light of the principles already adduced; principles which may detect former errors, and lead us to a clearer and more correct solution of the problem before us.

As the old Persian symbol of Light and Darkness pervades all subsequent forms of religion, so the ancient distinction between matter and force underlies and vitiates all the later systems of philosophy. This is evident from the two generic ideas of life—one material, the other the Archæus, or immaterial—which have been advanced almost from the very first. "On the one hand, we are told that all the processes of organic life are the result of an immaterial principle, the soul; and on the other, that all the flights of genius, and the aspirations and 'sorrows of the soul' are but the product of our material frame."* Strictly in accordance with this latter assumption is the *chemical* explanation of life proposed by Paracelsus the empiric,† and Sylvius who discovered the valves of the veins. The *mechanical* doctrine of life succeeded this, under the influence of Des Cartes,‡ Boerhaave,§ Hoffmann,|| Sauvagès, and others. This was in part the immediate result of the discovery of the circulation of the blood,¶ pro-

* J. R. Reynolds, Med.-Chir. Review, No. xiv.

† Paracelsus was born A.D. 1493, and died in 1541. Martin Poli should be added to these, who in his "Il Trionoso de gli Aeide," Rome, 1706, opposed the mechanical hypothesis of Baglivi.

‡ Des Cartes, born A.D. 1596, died in 1650.

§ Boerhaave, born A.D. 1668, died in 1738.

|| Hoffmann's works were first published at Leiden (Leyden), A.D. 1708. He asserted that animal life consists in the mechanism of the solid and fluid parts of the body.

¶ Harvey first taught the circulation of the blood in his public lectures, A.D. 1616.

moted also by the great attention then paid to Astronomy; the physiologists of that age believing they could trace the motions of animal fluids as Kepler traced the motions of the planets. "The discovery of the circulation of the blood by the contraction and dilatation of the heart, and the connection of these movements with the expansion and contraction of the lungs, called the attention of physiologists to the presence of mechanical agencies in functions where their influence had not been suspected." The subsequent *electrical* theory of life, suggested by the brilliant experiments of Galvani, Volta, and Aldini, and supported by Lamarck, Hunter, and Abernethy, has already been referred to.*

These different views, influenced by the prevailing physical studies of the day, successively represent the first generic idea of life as the result of material conditions, or, in other words, of natural and physical forces. And we may dismiss them, now that they are replaced by others more in harmony with modern thought, with the following words of the judicious Whewell: "Life is not a collection of forces, or polarities, or affinities, such as any of the physical or chemical sciences contemplate; it has powers of its own, which often supersede those subordinate relations; and in the cases where men have traced such agents in the animal frame, they have always seen, and usually acknowledged that these agents were ministerial to some higher agency, more difficult to trace than these, but more truly the cause of the phenomena."†

The *other generic idea of life*, probably the first in point of time, regards life itself, or the *vital principle*, as the cause of all living action, of all organization, or organic action. The grounds for this opinion, as summarized by Prof. Porter, are the following: "1. Every living being originates from a being that is already organized, or living. 2. The process of nutrition or growth is peculiar in respect to its material and the method of assimilation, neither of which can be explained by mechanical or chemical forces or laws. 3. Growth in a living being proceeds after a

* Galvani was born A.D. 1737; Aldini was his nephew; Volta wrote about A.D. 1790.

† History of the Inductive Sciences, vol. ii, p. 450.

definite plan, and is adapted to the end of the individual and the species. 4. Living beings are still further peculiar, in that their existence and growth involve a constant change of material in consistency with integrity of being and sameness of form. 5. Organic beings are largely susceptible of repair."*

The earlier form of this idea makes life an emanation from superior or Supreme Life, which uses the objects of the material world, moulding them to its own will, in accordance with a preconceived plan,—the resulting organism corresponding to its own spiritual shape. The history of this doctrine may be stated in few words: it was taught in the *idola* of Plato;† affirmed by Hippocrates; developed in the dynamic theory of Swedenborg, and expounded in the transcendental physiology of Wilkinson.‡ But granting the truth of all that is claimed by these leading men, and by those who think with them, as to the higher nature and origin of life, the *vital principle* apart from the living organism still remains an abstraction, a *nonentity*, as we have already shown. For the vital principle can as little exist independent of the organism, as the organism itself can exist apart from the vital principle. Hence the unsatisfactory nature of the doctrine, and its rejection by many excellent physiologists. Why this result so generally follows the course of modern study, will be better explained when we come to give our own definition of life. But first it is necessary to examine the later and more plausible, but, as we think, fallacious, definitions of *life as the result of organization.*

As the previously mentioned chemical, mechanical and electrical definitions of life, arose in connection with the successive development of their respective inorganical sciences in the last age, so this last, which we term the *physiological* theory of life, appears in correlation with the simultaneous and corresponding advance of organical science at the present day. The doctrine

* Human Intellect, by Noah Porter, LL.D., p. 80.

† Plato's *ideas* were both *external exemplars* and *efficient causes*; this doctrine, which forms the basis of all his philosophy, includes alike the world-soul and the soul of man.—UBERWEG., Hist. Philos., vol. i, pp. 116, 131.

‡ "The Human Body and its Connection with Man. Illustrated by the principal Organs."—By J. J. G. WILKINSON, M.R.C.S.L., London, 1851.

of life as the result of organization is presented in various forms by different writers; and, in some recent instances, under certain thin disguises of still more organized refinement. But to one conclusion they all virtually come at last. As the authors of the "Vestiges of Creation," and "Positive Philosophy," show how the universe created and sustains itself, so do these physiologists substantially affirm that the organized body organizes itself *ab initio;* appropriates for its own use the materials of nature; transforms her physical forces into vital powers, and lives, and moves, and has its being, by virtue of this its own self-organization.* Possibly this might be accepted as a satisfactory method of solving the difficulty, if it did not involve one still greater,—*action before existence.*

But lest injustice should seem to be done to any, we quote some of the various definitions from which our statement is logically derived. According to Bichat, life is *l'ensemble des fonctions qui resistent a la mort,*—the assemblage of the functions which resist death. In other words, this learned physiologist and pathologist seems to say, Life is that which lives by virtue of its own self-existence! Cuvier calls life *l'ensemble des phénomènes qui ont donne lien a la formation.* Richerand gives the name of life to the collection of phenomena which during a limited time succeed each other in organized bodies. According to Cabanis, "To live is nothing else than to receive impressions and to execute the movements they excite." It is with reference to this definition,—and to that of Rolando, who describes life as *le complement des fonctions,* and as *un etat forcé,*—that Wilson Philip says, "Life, without much violence done to language, has been called a forced state: it consists of excitement called into action by suitable stimulants." Comte, adopting the definition of De Blainville, makes life consist in "a double interior movement, at once general and continuous, of composition and decomposition." Lawrence, following in the footsteps of Richerand and Bichat, represents life as consisting in "the assemblage of all the

* The definition of *organization as the cause of life* might be more readily received if it involved transmission; but, in the mode in which it is used, it rather precludes such an inference.—*Vide* PORTER'S "Human Intellect," p. 35.

functions or purposes of organized bodies and the general result of their exercise." Mayo says, "The term life is a collective expression for an assemblage of phenomena;" and Sir Charles Morgan makes life consist "in the sum total of functions which any individual can perform." Dr. Prichard, while admitting that life results from organism, very aptly objects against definitions of the kind here given, that "life may subsist without the performance of any functions;" while Roget, influenced by the grand philosophical doctrine of final causes, defines life as consisting of "a continued series of actions directed to particular purposes."

Sir Kenelm Digby—an English nobleman who wrote in Paris, in 1664—seems to have anticipated this modern organization doctrine as the definition of life. Speaking of fruits growing at liberty upon the tree, he says: "They seem to have a particular figure allotted to them by nature: yet in truth it is the ordered series of natural causes and not an intrinsical formative virtue which breedeth this effect. I persuade myself it appeareth evident enough, that to effect this work of generation, there needeth not be supposed a forming virtue or *vis formatrix*."* Carpenter defines life as "the state of action peculiar to an organized body or organism." Mr. G. H. Lewis defines life as "a series of definite composite changes, both of structure and composition, which take place in an individual without destroying its identity." According to Herbert Spencer, "Life is the definite combination of definite composite changes, both simultaneous and successive, in correspondence with external coexistences and sequences." Virchow makes "the vital force to be the expression of the definite co-working of physical and chemical forces." Schleiden seems to doubt if life may not be "finally referred to inorganic agencies." Lotze says that "living functions are not simply forces but capacities for functions which arise out of the special method of conjoining material particles into a coherent system."

All these various forms of definition, except perhaps that of Roget, have a common underlying principle; that which regards

* "Two Treatises," &c., pp. 288, 289.

vital actions, or life as a term representing them, as the special characteristics or properties of organized structures—*as the result of organization.**

Our survey of the two great classes of definitions hitherto put forth, shows them both to be equally unsatisfactory and delusive. The former and most ancient, *that of the vital principle,* exalting the soul at the expense of the body, leads upward indeed; but only to ultimate itself in an abstraction in which the reason finds no repose. The latter, more modern and popular, *that of organization,* exalting the body at the expense of the soul, plunges its advocates into the slough of materialism, and substitutes the ashes of science, falsely so called, for the living fire of self-evident truth. Nor can we hope to improve upon the results arrived at by those who have preceded us, except by adopting a method different from theirs. They separated the soul from the body, and the body from the soul; we regard them as essentially united. Their doctrine of life is formed by divorcing the material from the immaterial, the natural from the supernatural; some of them even denying the latter altogether. Ours maintains their inseparable union; recognizing in science the great social law, *what God hath joined together, let no man put asunder.*†

When some modern physiologists affirm that *life results from*

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* Of "Sleep and its Derangements," its learned author, Dr. W. A. Hammond, says: It "is written from the standpoint of regarding the mind as nothing more than the result of cerebral action."

† "It is mainly to the labors of those who have inculcated the doctrine of the localization of faculties, that the metaphysical conception of mind, as an entity separated from and at continual variance with matter, has become a thing of the past, and in its place substituted the conception of a force developed from and dependent on the changes induced in a material substratum, the brain."—Journ. of Psychological Medicine, vol. iv, p. 196. (William A. Hammond, M.D.)

This modern doctrine of *thought as the product of the brain,* is the necessary result of the conflict of the new objective science with the old subjective error; by the *essential interdependence* of the mind upon the body, and of the body upon the mind, and the *inseparable union* of these two in normal life, which it has been the object of this paper to illustrate, the whole problem is solved, and the two extremes of idealism and materialism reduced to the common medium of actual life.

the combination of the forces of nature, we reply that the stream may not rise higher than its fountain. Nor can it be denied that this principle is as true in physiology and in psychology as in physics. For all great principles of natural truth hold good successively in the higher and highest spheres to which they may be applied. When other physiologists assert that life is produced by the conversion of physical forces into vital powers, that *life results* from *organization*, we answer, in part, that life may indeed be thus maintained, but not thus primarily originated. For such conversion of physical forces as is involved in the production of life, necessitates the operation of influences still higher than those into which the forces are converted. Otherwise life is virtually made self-creating; the *reductio absurdum* alike of the organization theory and of the positive philosophy. And we answer yet further, that life—whether considered as an organization, or as a vital principle, or as both united—is in point of fact neither immediately created nor produced; but *is always derived from preceding life*, until in the ascending series we reach at last the one Supreme, Self-existent Source of all life and all being.

The same difficulty is encountered in seeking for the origin of life, that Plato met with respecting the origin of the soul. This latter problem he believed to be solved by the doctrine of *pre-existence;* a doctrine which is indeed true in general, but not in the particular sense of his statement; for every spirit must take its rise in some pre-existent spirit, till we come, as just stated, to the self-subsisting Father of all spirits. But the Platonic solution of the problem of the origin of souls is still more strictly applicable to living bodies; for all forms of life, whether animate or inanimate, are seen to spring from similar preceding forms; and from them, in turn, similar succeeding forms are derived.

Looking at life, then, from this point of view, we find involved in it three distinct principles,—*derivation, development, reproduction.* Every living thing, being, or person, is derived, both as to its immaterial essence or quality, and as to its material substance; in both these respects, also, it is developed; and in both these respects, finally, it reproduces its species. These three elementary principles belong to all classes of life; pertain alike to

its highest and to its lowest forms, and to nothing else, and must enter into every just definition of life as life. *We call that life, therefore, which is derived, which develops, and which reproduces.**

If we seek to test this mode of definition by comparison with those hitherto propounded, it is evident that we neither find a living organism without vitality, nor vitality without a living organism, each being inseparable from the other. So that we can no more say that life is the result of organization, than we can say that organization is the result of life. While in every instance of life appear the same inevitable triune principles,—derivation, development, reproduction. Organized forms there are, and vital powers,—both alike inseparable and derived; derived, therefore, together, and from previous derived and inseparably united organized forms and vital powers. And as they are derived together, so also are they developed together, and together reproduce their species in corresponding similar essence and substance.

In all living forms we observe a certain something higher than pertains to organized nature. In this higher element we recognize that which Aristotle first called *metaphysica*, something beyond or above physical nature; which in the lowest sense, therefore, must be termed supernatural, and which in the highest sense is called spiritual. And as the inferior, physical nature of man is in relation with the material world; so is his superior nature in relation with the corresponding spiritual world, by whose influence physical forces are converted into vital powers, and from whose mysterious laboratory are co-operatively derived the intellect of animals and the "reasonable soule" of man. Such statements as these may be called irrational and unscientific. But are they any more irrational than is that doctrine of life which develops man's reason and moral being, his ambition and affections, his belief in an infinite Divine Being, and his hope of eternal glory, from the clods of the valley animated by solar light and heat and stimulated by terrestrial magnetism? And

* "What a wonderful thing it is, that that from which we are produced should carry in itself the impression not only of our bodily form, but even the thoughts and inclinations of our fathers."—MONTAIGNE.

if the belief in the existence of a supernatural or spiritual nature of man, *not being irrational*, is still to be deemed *unscientific*, so much the worse for science! How much better would it not be to bring science up to the higher ground of substantial truth, than thus to degrade truth to the level of a science professedly materialistic, positively pantheistic, and altogether destructive?*

We have seen how substance and form are inseparably united in the inorganic world; and how in the advancing orders of organic nature—the vegetable and animal kingdoms—the higher vital powers, into which physical forces are converted, are equally inseparable from their respective organized forms. Many of the vital powers thus indissolubly conjoined with the physical structure of animals—such, for example, as the amorous passions so eloquently described by Virgil†—are essentially dependent upon the organization itself. And the same is true of corresponding forces in the human race. But in man there are, in addition to the powers which he possesses in common with "other animals,"‡ vital forces, more truly psychical, or rather absolutely spiritual. These are not only not dependent upon corporeal powers, but control them, using the bodily organization merely as an instrument, sometimes even destroying it. Such are the ambition and love of dominion so often seen among public men; such the love of gold so frequently observed in private life, and such, finally, the more glorious, heaven-descended love of doing good, that sublime devotion to the interests of suffering humanity, which ennobles the lives of many, and makes martyrs of not a few.

The soul of man, as soul—that is, in its essential nature and highest endowments—has powers of its own, powers peculiar to itself, whose influence may be felt in every direction and perpetuated in succeeding generations. It is thus that the good deeds of men live after them. But these peculiar and superior powers of the soul, the spirit's *characteristic vital forces*, are apt to be overlooked. This is remarkably the case with the Darwinian

* Dr. Hammond defines psychology as "the science of mind considered as a physical function." Journ. Psych. Med., vol. iii, p. 567.

† Georgics, book iii. ‡ Tacitus, Germania.

theory of development and its precursor, the organization-doctrine of life which we have so fully explained, both being in this respect alike deficient and one-sided. The lower, physical growth and nutrition of plants, animals, and men, have indeed a near affinity with the mother earth. But when we investigate the idea and the love of the beautiful, the good and the true, and the reverential conception of the Infinite and the All-Holy, it is evident that these psychological abstractions, these strictly spiritual phenomena do

"Not from the ground arise."

The tree is indeed based upon the earth; but it grows up toward the sun, as if in acknowledgment of the light and heat received from above, the sun itself with swift pace advancing to meet it on the way. So man's aspirations for higher life, and his instinctive longing to pass from the things which are seen and uncertain to those which are consciously felt to be invisible and certain, are equally recognitions of the exalted source of his present state of being as raised above that of the brutes, and they are in a similar manner met, reciprocated and strengthened from on high. No more profound philosophy was ever expressed in few words than that *Man shall not live by bread alone.* Faith, or inalienable belief in that which is both hidden from bodily vision and superior to earthly life, is as really a constituent of the higher soul of man, as self-consciousness is of his whole being. Nor from the very nature of the case could it be otherwise—unless man were condemned to remain in total ignorance of his true nature and destiny. And as the soul has powers of its own, so also must it have sources of vitality and nutrition peculiar to itself—appropriate to its exalted constitution. As the body draws its supplies of nourishment and force from the physical world with which it is in relation below, so does the soul draw its nutrition and vital power from the spiritual world above, with which it is in actual and constant, although unconscious, communion. This statement may be called a religious doctrine; but it is not on that account any the less likely to be true, and if true, even as a religious tenet, it is none the less a psychological and scientific fact. And as such a fact, it must

eventually be recognized and acknowledged. Indeed, we believe the time is not now far distant, when science will as readily accept the substantial verities of the spiritual world as she now does the objective phenomena of physical nature—such acceptance being indispensable to the full development of psychology, to the perfect understanding of the entire and complex nature of man.

In psychology, more than in any other, more indeed than in all other sciences, we come to study the reality and the totality of life in its highest earthly form. Psychology alone teaches us to comprehend the whole of human nature. While admitting that as to his body man is placed in immediate and conscious relation with the physical world, and that as to his soul or spirit he is equally, although it may be unconsciously, placed in communion with the spiritual world, it becomes evident that his life as a whole results from the alternate or combined influence of them both. And while thus holding fast to the inseparable union of body and spirit as the fundamental principle of our doctrine of life, and accepting and explaining all the phenomena thence resulting—both from the reciprocal action and reaction of the body upon the spirit, and of the spirit upon the body, and from the similar reciprocal action and reaction upon man of the respective physical and spiritual worlds—we avoid the Scylla of mysticism, idealism and spiritualism, on the one hand, and escape the Charybdis of materialism, sensualism and pantheism on the other.

Physical forces are competent to the production of crystals, which make the nearest approach to organized bodies. But these crystals are neither derived from nor begotten by previous crystals; they are neither developed, nor do they reproduce their species. Organized bodies of the vegetable kingdom are also under the influence of the same great physical forces; but here these forces are newly combined and converted; vital powers appear, and what we call life in its lowest form results, in which is maintained a constant struggle against the disorganizing and disintegrating influences of physical nature. In the animal kingdom a new factor presents—*intelligence*—which is as much supe-

rior to the growth, nutrition, and reproduction of the plant, as these latter are to the chemical affinity, magnetism, and other still more mysterious forces which unite in the formation of crystals.

While contemplating the instinct, perception, memory, cunning, reason, judgment, and the affections, love, hatred, jealousy, gratitude for favors and revenge of injuries displayed by various animals, we feel that we have entered another world, one even farther removed from the inanimate life of the vegetable sphere, than that is from the orderly stratification and crystallization of inorganic matter. When studying life in this new phase, we are at the same time conscious that there is nothing like it in the world below; and that its only and immediate analogue is to be found in the nobler world of human life and being above. The progression is altogether upward. And as the greatest mental development of animals arises from the intercourse with man, so their still higher moral feelings, their self-sacrificing faithfulness and devotion are only manifested in recognition of their human lords and masters.

Another step in the ascending series, and we come to man, whose superior intelligence renders him supreme over all beneath him, and whose more exalted moral nature brings him to the knowledge of, and places him in relation with, beings of a still higher order,—even with the very highest. Consisting of a mysteriously united physical body and spiritual soul, man becomes the *point d'appui* of the material world on the one side, with its various forces and impressions, and of the spiritual world on the other, with its soul-sustaining influences, with its direct influx from the Father of Spirits, and unconscious, or even conscious, communion with its invisible inhabitants.

Such are the results to which we arrive by applying the inductive process of reasoning to the vital forces which represent the entire phenomena of human life—results, which are most important as preliminary to the study of normal psychology; and no less important as being essential to the proper understanding of morbid psychology. For as the knowledge of physiology is essential to the study of pathology, and as abnormal physiology

itself throws much light upon that which is normal; so is an acquaintance with psychology indispensable to the investigation of the pathology of the mind, while morbid psychology, in turn, greatly assists in determining the true normal psychology of man. And we conclude this introductory essay in the words of another: "He who wilfully shuts his eyes to the complete psychology of man, postpones to another life the more glorious light which in a truly scientific point of view is offered him in this."

III.

THE IMPORTANCE OF MENTAL SYMPTOMS IN OUR PROVINGS AND PRESCRIPTIONS.

By Clement Pearson, M.D., Cleveland, O.

Magendie once said in a lecture to his class, "Gentlemen, I know nothing at all about medicine, and I don't know anybody that does know anything about it;" and if we were all willing to make the same admission in reference to psychology, perhaps we would not be far removed from the truth. For who can comprehend the science of the soul, or tell by what laws it is governed, whence it came, under what conditions it acts, or whither it goes? This mysterious motive power, this dynamic, odic or vital force through which or upon which Hahnemann believed our remedies should act in the removal of disease, is, as he said, beyond the reach of the pathologist's scalpel. Hume says that impressions and ideas are the only things known to exist, and that mind is only a name for the sum of these.

From observation, we might infer that impressions and ideas are common with the lower animals as well as with man, and that if these constitute mind, then is mind common with them also. But is mind and the soul, then, one and the same thing; or is the former only the manifestation of the latter? This view would, it seems to me, only revive the old theory, that—

> If mind, as ancient sages taught,
> Is a never-dying flame;
> Still shifts through matter's varying form
> In every part the same;
>
> Beware! lest in the worm you crush
> A brother's soul you find;
> And tremble lest that luckless hand
> Dislodge a kindred mind.

It has generally been conceded that man is endowed with reason, while brutes are governed by instinct; but who can define the one as distinct from the other? An old cat will look a stranger steadily in the eye and conclude whether it is better to run, or safe to stay; and its decisions are rarely incorrect. A dog will read his master's countenance and readily determine whether he be pleased or angry. It may be said they acquire this by observation, but what do we know that we do not obtain in the same way? We may *believe* much but *know* very little that is not the result of our own or another's experience. Savages certainly learn from observation; when they witness the ripening of a certain berry they know that a particular kind of fish may be found in the streams, and so prepare for a fishing excursion. And though they undertake to give a reason or explanation for every phenomenon they witness, their conclusions are often very far from the truth. Some believe that an eclipse of the sun is caused by a quarrel between it and the moon, and so make all the noise they can in order to frighten the moon and drive it to its proper place again. And hitherto the remedy has been very successful, or at least the moon has always gone to its right place, after its application. Disease and death they believe to be caused by evil spirits, and hence the remedy is incantations and jugglery.

Lubbock tells us that the medicine men among the natives of Patagonia endeavor to impress their patients with the idea that their pains are caused by bugs, worms, or other living animalcules, and so apply their lips and suck the affected part, taking care first to place in their mouths something of this kind, which they assure the patient they have extracted, and that as the cause is removed the effect must naturally cease. This custom may possibly have given rise to the nursery cure of "kiss the place to make it well." The effect is undoubtedly entirely imaginary, and yet who has not seen children stop crying after it has been applied, with the assurance that the pain is all gone?

It is quite customary with some of the African tribes to have a prayer written by a wizard doctor on a board; this is carefully washed off and the water swallowed, and serves, as they believe, not only as a cure, but as a prophylactic against disease.

Whatever this thing called mind may be, as an entity its influence over the physical system is powerful, almost beyond comparison. It is well known that a mental equilibrium is as necessary for physical health as nourishing diet; that during the prevalence of wars, when the whole population is in a state of mental commotion, the percentage of disease is doubled and often trebled. In the reign of Marcus Antonius a fatal pestilence is said to have broken out at the sacking of Seleucia, and extended from Caledonia to Persia. It was estimated that for a considerable length of time in Rome alone 10,000 persons died of it daily. And disease has not only always travelled in the wake of armies, but in advance of them. Even in our own country, from the year 1861 to 1865, there was more sickness than there has been in the past seven years, or probably will be in seven more to come. A part of this in some countries is no doubt to be attributed to unwholesome food, exposure, &c.; but during the War of the Rebellion the mental condition of the people had certainly much more to do with it. Where epidemic or contagious diseases prevail, there can be little doubt but that their spread and mortality are greatly increased by the fear that takes possession of the minds of the people; some from a dream, or other mental impression, become possessed with the idea that they are to die at a certain time, and it sometimes so happens, which is regarded as an evidence that "coming events cast their shadows before." The mental condition has not only much to do with contracting disease, but with the patient's recovery afterwards. Every physician of experience knows how difficult it is to conduct to a favorable termination a case of typhoid fever where despondency, grief, or other depressing emotions, which his skill can neither remove nor palliate, hangs like an incubus over his patient; and with what tenacity, too, do we sometimes find patients insist that our remedies have not relieved them in the least, when their whole aspect plainly shows that their physical suffering is entirely removed, and nothing but their prejudice against our system, and fixed determination, as I have sometimes thought, to not be relieved by it, prevents the cure from being regarded as both speedy and permanent.

Sir Benjamin Brodie believes that pain may be felt in any

part of the body to which the attention is closely drawn; and Sir Henry Holland also remarks that we not only become conscious of the existence of a part subjected to concentrated attention, but may experience in it various odd sensations as of weight, heat, &c. Some believe that by thus concentrating the mind for a long period of time on any one organ or part of the body, its capillary circulation and nutrition may be ultimately greatly influenced. A case is given by Dr. J. Crichton Brown of a married lady, fifty years of age, who entertained the idea that she was pregnant; and when the time she had set to be confined arrived, she acted in every particular as though she was being delivered of a child, having severe pains resembling labor, and a profuse hemorrhage or flow of blood lasting three days, though menstruation had previously been suppressed for six years.

A circumstance came under my own observation, where at a boarding-house, a mischievous fellow slipped a candy mouse in the soup-dish of a fellow-boarder, who upon lifting it with his spoon and mistaking it for a real mouse, became instantaneously so sick that he had scarcely time to leave the table till the contents of the stomach were ejected by vomiting; no emetic could have acted so promptly or more effectually. Darwin thinks such involuntary contractions of the stomach may be attributed to the fact that our semihuman progenitors may have had the power like ruminants of voluntarily rejecting food which disagreed or which they supposed would disagree, and which power he alleges the monkeys even when perfectly well still possess. So powerfully do mental emotions affect the physical system that instances are well authenticated, where from fright, grief, &c., the hair has turned gray in a few hours. One instance is recorded of a man brought out for execution in India, where this change was so rapid as to be perceptible to the eye of those present.

Numerous cases are reported by Sir Astley Cooper, Comb, Carpenter and others, where mothers upon nursing their children soon after a violent fit of excitement, have had them die in convulsions in less than two hours. Strong men condemned to be executed have been killed outright by the action of the mind alone.

The dancers at the temples of St. Vitus and of St. John, in the fourteenth century, were no doubt victims of hallucination, but to them it seemed a verity. Pain is certainly not so keenly felt if the mind of the patient be diverted from his ailment. Many cases might be enumerated where, under great excitement, persons have received fatal mechanical injuries without being conscious of any pain or suffering, until the excitement that had absorbed their attention had subsided. An agent, therefore, exercising such an important and controlling influence over the physical system, should be well studied, and its manifestations carefully noted, in making up our diagnosis or in selecting the remedy. Hahnemann advised that we administer our medicines with a firm hand, but what, we might inquire, is to be gained from this? Did he believe that any potency was imparted from the hand or the will to the medicine, or only imply that firmness and decision on the part of the physician in the sick-room, were little less essential than the remedies he prescribed? If the latter, he certainly proclaimed a great truth, for of all causes of failure, short of downright ignorance, perhaps none are more common than a vacillating, hesitating course pursued by the practitioner in the presence of the patient or his friends; for if they once see that he is undecided as to the character of the disease or the appropriate remedy, or manifests an indifference as to how it terminates, the chances are that he lose his case, either by death or by being discharged and another physician being called. What else can account for the success and popularity of some practitioners than their conduct in the sick-room? Is it their superior knowledge of disease or of the Materia Medica? A part is no doubt due to this in some instances, but should a physician show by his looks or actions when he makes his prescription, that he has no confidence to believe that it will effect a cure or even an improvement, it is questionable whether his patient will have enough to believe it helps him, even if he have enough to take it.

We hear physicians who profess to be homœopathists say they have no confidence in highly attenuated medicines, that they have tried them and were not successful; but in a majority of such cases was not their lack of confidence plainly visible to

their patients, or in the case of children did it not prevent that fair and thorough trial they would feel disposed to give a remedy in which they had the utmost confidence? To one of these causes we have no doubt may be attributed many of their failures, while others may have originated from spurious medicines, or from their imperfect selection or adaptation to the peculiar idiosyncrasy of the patient, but in no instance can it be ascribed to their utter impotency.

In regard to the necessity of resorting to instruments in parturition, the experience of physicians is also widely different; some seem to find it necessary in one-twentieth of all the cases they meet in practice, or perhaps in a larger percentage still; while others, without any such aid, quite as successfully manage all their cases. For my own part, for over twenty-three years I have never had occasion to resort to the forceps. Who has not seen, on such occasions, whole families thrown into violent excitement, when the danger was not at all imminent, from the physician in attendance becoming frightened, losing self-control, and convincing them by his words and conduct that the case was serious and beyond his skill? And how soon has confidence and harmony been restored by the presence of another practitioner who seemed at once to comprehend the whole situation and had the nerve to render the necessary assistance. Persons who have long been the patients of one physician are naturally led to have confidence in him, and to conclude that he understands their case better than any stranger. And in this there may be much truth; hence they will sometimes send a long distance for him, and often imagine they feel better as soon as they see him. Some physicians may be very good diagnosticians, and even prescribe with great accuracy, but they never become successful practitioners, as they possess no faculty of gaining or retaining the confidence of their patients. Others, with very little skill, and less medical knowledge, will often build up a practice by false pretences, and the exhibition of certificates of cures effected of persons whose names have long since been carved on their tombstones; but these rapid conversions of the people usually soon react, and the doctor is forced again to exhaust the credulity of the people in another field of operations.

It is alleged by some, that in the absence of language, looks, or gestures, one mind cannot influence another. This, however, others stoutly deny; and in the case of highly sensitive persons, it would sometimes seem that they not only felt the influence of others near them, but almost experienced their aches and pains. Such impressible persons often become very troublesome patients. They dislike to have certain persons come into their presence, and feel relieved when they are gone. And there are, I believe, persons who should never enter the sick-room, as they bring with them an influence injurious to the patient; but this may, in a great measure, result from the sense of seeing or hearing. Certain it is that language, either natural or artificial, must be the manifestation of mind and the great medium of thought.

What the result would be of Prof. Tindal's proposition to test, on an extensive scale, in separate wards of hospitals, the efficacy of prayer alone in restoring the sick, we cannot tell, but judge it would depend much on the organization, both mental and physical, of the patients, much on their early training, their faith, and their imagination. Carver and Prescott tell us that amongst some savage tribes the medicine man sits by his patient day and night, and rattles in his ears a gourd-shell filled with dried beans, and that this is the catholicon for all diseases; but if any benefit is derived from such treatment, it must arise wholly from the confidence the patient has in its potency. One who could see in it nothing but noise would be likely to be made worse instead of better. We may therefore readily conclude that if faith without works is dead, without medicine it would be death.

As it is doubtful whether a purely local disease apart from a mechanical injury can exist, so mental derangements may be attributed in a vast majority of cases to physical ailments; but so closely connected are the mind and the body that violent mental emotions, by affecting the circulation and deranging digestion, become predisposing causes of disease and death. Too little attention, I am strongly inclined to think, is paid by our provers to mental symptoms, and too little regard by us in selecting the remedy. Are odd words, strange, wild, incoherent gestures or expressions, either in the prover or the patient, not as

indicative of certain pathological conditions as a cutting, tearing, or shooting pain? Hahnemann was very particular, not only in his provings but in all his prescriptions, to note the mental phenomena, and says: "There is not a single operative medicine that does not effect a notable change in the temper and manner of thinking of a healthy individual to whom it is administered, and each medicinal substance produces a different manifestation;" and that "no cure can ever be performed according to nature, that is to say, in a homœopathic manner, without paying attention at the same time to the change that has taken place in the mind and disposition, and selecting a remedy capable in itself of producing not only similar symptoms to those of the malady, but also a similar disposition and state of mind." "Aconite," he says, "seldom or ever effects a rapid and permanent cure when the temper of the patient is quiet and even, or Nux vomica when the disposition is mild and phlegmatic, or Pulsatilla when it is lively, serene, or obstinate, or Ignatia when the mind is unchangeable and little susceptible to either fear or grief. And with care and observation might we not go through the whole list of our remedies in the same way? Who will arrange a Materia Medica, giving the mental key-note of each medicine?"

In one of our standard works on practice, and, I think, much the best we have, under the head of female diseases, in which we are perhaps more likely to meet with aberrations of the mind than in any other class, the author gives the indications for seventy-seven remedies, with the mental symptoms for only twelve, and some of these are dismissed with only two or three words, thus: Aconite has eight words, Apis twenty, Bellad. nine, Cham., Graph., Hyos. and Ign., eight each; Lyc. four, Nat. c. fourteen, Nat. m. seven, and Puls. and Sepia, two each, making in all eighty-nine words or about eight lines. It is true that by referring to our works on Materia Medica we may find mental indications for most of our remedies, but in our clinical reports they are rarely mentioned. Where little physical suffering is complained of, and mental symptoms are the more prominent, we usually think of such medicines as Aconite, Ars. alb., Alum., Bell., Cicut., Coff., Hyos., Ign., Nux vom., Opium, Phos., Puls., Sep. or Stram.

In delirium tremens, caused from alcoholic liquors, we are directed to give Opium; and if caused by Opium, to give Nux vom.; but my own experience would justify me in such cases as occur from the excessive use of Opium, or rather from leaving it off, to give Opium at the 30th, 200th, or even a higher potency; and if we had some other vehicle besides itself in which to preserve it, how attenuated alcohol carried up with distilled water to the 30th or higher would do for the delirium of drunkards I cannot tell, but shall certainly test it in the first case that comes under my care, as well as the Hydrophobin for hydrophobia, having for years used with the best results Mercurius 30th and 200th for mercurial salivation, Tabacum for vertigo caused by tobacco, Plumbum for lead colic, &c. This may be thought by some to be isopathy, but there is sufficient difference between dynamized medicines and the crude drug to make them nothing more than similars.

Cases of mental derangement are said to have been cured or greatly relieved by another assuming to be similarly deranged, and acting and talking in the same manner. A lady is said to have cured her husband of the habit of swearing by swearing herself on every trifling occasion. A man who fancied himself to be a dog, and ran on all fours, is said to have been cured by another who ran after him in the same way.

But what peculiar pathological conditions can develop such symptoms? Can we determine, need we care, as long as we have the remedies and know how to wield them for their control?

Some physicians appear disposed to make pathology the fulcrum upon which the lever should always rest if we would successfully move disease; but how are we to form our diagnosis of this condition, where none but mental symptoms present themselves.

In botany, when we wish to find the root of a plant, we do not first dig in some uncertain soil, but look in the proper locality for the flower, the leaf, or the stock; and when we have found these, we know where the root is, and its shape, size, and color, whether it be red, purple, or black.

Let us then study well the mental picture of every remedy, and when we find its image reflected in our patients, may we not prescribe with as much certainty as when characteristic aches and pains are present, and be able to remove the totality with the same certainty that we know that two substances of a similar character cannot occupy the same place at the same time.

IV.

NON-RESTRAINT IN THE TREATMENT OF THE INSANE.

By Samuel Worcester, M.D., Burlington, Vt.

Non-Restraint:— "La plus haute expression de ce qu'il est possible de réaliser dans l'intérêt de l'amelioration intellectuelle, physique, et morale des aliénés, confiés à nos soins."—*Morel. Le Non-Restraint*, p. 37.

In entering upon the consideration of this subject, it may be well to review briefly some of the leading features in the condition of the insane at the close of the eighteenth century, and the change that took place at that time.

Previous to the year 1792, the treatment of the insane was barbarous and cruel; asylums were managed like prisons, and were full of ingenious devices for torturing and punishing the unhappy lunatics who were confined and chained within their walls; stripes were inflicted daily as proper remedial treatment, and the patients were regarded and treated as wild beasts rather than as human beings. At that time two illustrious men, Hahnemann and Pinel, showed that the insane can be ruled by kindness more easily than by severity. The part taken by Hahnemann in this work of reform is not generally known, even among his followers, as it was the work of but a short period of his life, and was overshadowed by the brilliant results of his investigations in the field of Materia Medica. In the year 1792 he was appointed to the charge of an asylum in Georgenthal, and in 1796 he published an account of his cure of the Hanoverian

minister, Klockenbring. In this report he advocates gentle treatment of the insane in these words: "I never allow any insane person to be punished by blows or other painful corporeal inflictions, since there can be no punishment where there is no sense of responsibility; and since such patients cannot be improved, but must be rendered worse by such treatment." Dr. Dudgeon says, "May we not, then, justly claim for Hahnemann the honor of being the first who advocated and practiced the moral treatment of the insane? At all events, he may divide the honor with Pinel, for we find that towards the end of the same year, 1792, Pinel made his first experiment of unchaining the maniacs in the Bicêtre."* This date has been generally accepted as the date in which Pinel's experiment was made, but it appears from a sketch of his life, written by his nephew, that "his appointment to the Bicêtre hospital was in the latter end of 1793, and not in 1792."† Thus his work among the insane was fully a year later than that of Hahnemann.

When Pinel entered upon his duties at the Bicêtre he was deeply impressed by the fearful condition of the inmates, and at last, after much urging, prevailed upon the authorities to allow the removal of the chains and shackles. The story of this great deed has been told too many times and is too well known to need relating here; suffice it to say that the experiment was successful, and order and kindness succeeded to tumult and harshness.

At the time Pinel was laboring in France, Dr. William Tuke was establishing the Friend's Retreat, at York, England. He endeavored to treat the inmates with all kindness and gentleness, in order that the institution might indeed be a "place in which the unhappy might find a refuge; a quiet haven in which the shattered bark might obtain the means of reparation and of safety." In this asylum, although restraint was not entirely abolished, the system of treatment by kindness was inaugurated in England, and the restraints used were of a mild type.

Little reform was made in other hospitals, except the one at Lincoln. Here, in 1829, Dr. Charlesworth, becoming convinced

* Dudgeon's Lectures on Homœopathy, London, 1845, p. xxiii.

† Pinel, a Biographical Study, by his nephew, Dr. Casimir Pinel.

that the use of mechanical restraint was in many cases injurious, laid his views before the Board of Visitors; who ordered, February 16th, "that the Director do keep a journal, in which he shall make daily entry of every Restraint and Severity used in this Institution, specifying the name of the patient, the nature of the restraint or severity applied, and the hours at which the same commenced and ended, and that the said Journal be laid before each Weekly Board, and signed by the Chairman."* A similar rule is now in force in every asylum in Great Britain. Improvement even in the Lincoln Asylum was slow, and attended with great difficulties, until, in 1835, Mr. Gardner Hill was appointed house surgeon in connection with Dr. Charlesworth, and in a few years their united efforts resulted in the entire abandonment of the use of restraint. Mr. Hill entered upon his duties with the resolution of carrying into effect his principle, that "in a properly constructed building, with a sufficient number of suitable attendants, restraint is never necessary, never justifiable, and always injurious in all cases of lunacy whatever."†

In spite of the reform so successfully carried out at Lincoln, most of the hospitals continued the use of chains, handcuffs and restraint-chairs. In 1839, Dr. John Conolly succeeded Sir C. W. Ellis as Resident Physician to the great Hanwell Asylum, containing about a thousand patients. Previous to assuming the direction at Hanwell, he visited Lincoln and other asylums; at all, except Lincoln, were found strait-waistcoats, handcuffs, leg-locks, and various coarse devices of iron and leather, including gags and horrible screws to force open the mouths of unhappy patients who were unwilling or even unable to take food."‡ At Hanwell the instruments of restraint of various kinds amounted to some six hundred.

Dr. Conolly was well versed in the views of Pinel, Tuke, Charlesworth and Gardner Hill, and was fully convinced that

* "Total Abolition of Personal Restraint in the Treatment of the Insane." A lecture by R. Gardner Hill, London, 1839, p. 71.

† Hill on Lunatic Asylums, p. 21.

‡ A Memoir of John Conolly, M.D. By Sir James Clark, M.D. London, 1869, p. 38.

the application of restraint increased the very evil that it was intended to relieve; and in his first report says: "The example of the Lincoln Asylum, in which no patient has been put in restraint for nearly three years, came also powerfully in aid of an attempt to govern the asylum at Hanwell by mental restraint rather than by physical." In 1849 he published his eleventh and final report, giving a summary of his work at Hanwell during the ten years of his life there. He says: "I will only further simply state, that now for ten entire years, no hand or foot has been fastened in this large asylum by day or by night, for the control of the violent or the despairing; that no instrument of mechanical restraint has been employed or even admitted into the wards for any reason whatever; that no patient has been fastened in a coercion-chair, by day, or fastened to a bedstead at night, and that every patient, however excited or apparently unmanageable, arriving at the asylum in restraint, has been immediately set free, and remained so from that time."

Urged by the results attained by Dr. Conolly, the treatment of the insane without restraint, and with but a limited amount of seclusion, has since been the rule throughout Great Britain; but Dr. Norton Manning says, in his report on lunacy, that, "During the last few years there has been a certain reaction in the feelings of superintendents on the subject. In quite half of the asylums visited, although restraint was not practiced, its advantage in certain cases was distinctly admitted, and it does not now meet with the all but wholesale condemnation which was accorded to it a few years ago."*

In the United States, restraint is used in almost every hospital. The forms generally used are the camisole, muff, wristers, bed and chair straps, the crib-bed, and seclusion; the amount of restraint varies according to the discretion of the superintendent and officers; but in no hospital does it compare with the amount used in England some forty years ago, and as a whole the patients are treated with a great degree of kindness and humanity.

It may seem presumptuous to criticize the treatment advised

* Report of Lunatic Asylums. By Fred. Norton Manning, M.D., Sydney, N. S. W., 1865. By Authority. P. 116.

by those who have made the care of the insane the work of a lifetime; but while I acknowledge that there are times when the use of restraint may be necessary, and of benefit to the patient, I also contend that the use of restraint, as it now prevails in our hospitals, is excessive and injurious to the patient. I know that patients have spent the largest part of their asylum life in the seclusion of their own rooms; one of these did so partly from choice, and during a period of three years left his room only when it was desired to remove the rubbish he had accumulated. It is by no means rare for a so-called dangerous or violent patient to spend weeks restrained by the camisole, muff, or wristers, by day, and a suitably prepared room at night. If an attendant desire to leave his gallery for a time, insufficiently attended, he simply makes matters quiet and safe by applying restraint or seclusion to any noisy or excitable patient. Similar examples might be related to almost any extent, but it seems as though they should not occur, and that the constant aim should be to avoid restraint as much as possible.

It is a rule in every hospital that restraint or seclusion shall never be applied except by order of one of the medical officers, and if through some emergency the rule should be neglected, the fact is to be immediately reported. Practically, in many hospitals, this rule is a dead letter, and the application of restraint is left too much to the discretion and wishes of the subordinate officers and attendants. As a necessary consequence, the object kept in view at all times and under all circumstances, is not the greatest amount of comfort to the patient, and his recovery, but the quiet and orderly government of the hospital, and in a less degree the convenience of the employés. This is not owing to any intention on the part of the officers of the hospital, but is one of the fruits of the present system of hospital management.

It is not my purpose to discuss the question of whether, as is supposed by some, abuses occur in hospitals, but only to speak of such treatment as receives the indorsement of superintendents as being right and proper. Among the methods of restraint or discipline in use in some hospitals there is one called "bathing," a process thus described by one who was subjected to it: "The

patient's hands and feet are tied, and sometimes a gag is inserted in the mouth. He is then placed on the bottom of a bath-tub upon his back, his face directly under the faucet through which the water is let into the tub. The faucet is then opened, and the water rushing through falls directly on and into the patient's face, filling his nostrils and mouth, producing all the sensation of suffocation by drowning." This evidence was given before a legislative committee of investigation, and the attendant who inflicted this "bathing" testified that he did so by order of the superintendent, in order to induce the patient to confess committing a slight misdemeanor, of which his innocence was afterwards proved. "Ducking" is another recognized use of the bath in cases of patients, male or female, of filthy habits.

Among the late writers on insanity, no one is more justly eminent than Dr. Henry Maudsley, who gives his views as follows: "There can be no greater fallacy than that of supposing what is called a moderate use of mechanical restraint to be consistent with a general plan of treatment in other respects humane and beneficial. It must be dispensed with altogether, or deterioration will ensue in the patient, and all kinds of neglect and tyranny will be engendered by degrees, until restraints become the usual substitutes for forbearance and watchful attention. . . . . It is necessary that the abolition of restraint should be absolute to be efficient; the principle of the non-restraint system will admit of no compromise. . . . . I do not hesitate to express a strong personal conviction that the use of mechanical restraint in any asylum, public or private, is an indication of a badly managed institution, and that its use in the treatment of private cases is unnecessary and prejudicial."

The advocates of restraint in its milder forms claim that in abandoning its use there would be a great increase of seclusion, which would prove fully as objectionable; but Dr. Manning says, in his Report, p. 121, "In all the arguments used for restraint by American physicians, the evils of seclusion are pointed out; but there is, as a rule, more seclusion notwithstanding the restraint in American than in English asylums."

When the true advocate of non-restraint uses seclusion, he practices it as did Dr. Conolly, at Hanwell, with whom it was

simply the removal from a gallery to a quiet room; from noise and excitement to tranquillity. In extreme cases the room was padded and partially darkened. All cases of seclusion, if of only half an hour's duration, were reported to the medical officer, and a record kept.

If our superintendents were required to keep for inspection by proper officers, an accurate record of every instance of restraint, seclusion, or use of the bath, is it probable they would consider it necessary to use them as often as is now the case?

Dr. Conolly says in his Eleventh Report: "The temporary seclusion of patients—that salutary exclusion of causes of excitement from an already irritated brain—is found to be but seldom necessary except for a few hours, and as an actual remedy which the soundest principles of medicine would recognize in every disease of excitement."* In Scotland, in 1855, an objectionable amount of seclusion had followed the abolition of restraint. "Patients were locked up in darkened rooms for days, weeks, and even months. Now, however, such a state of affairs is never seen; and in some asylums seclusion is virtually abolished except for medical reasons."†

Among American superintendents, no one stands higher in public opinion than Dr. T. S. Kirkbride, and in his views he represents the ideas held by the most eminent and successful of his associates. In his report for 1852, he refers to the subject of restraint in the following terms: "No point connected with the treatment of the insane is now more conclusively established than that every such institution may be conducted without any mechanical restraint whatever; whether it is expedient to do so under all circumstances is not so well settled. To dispense with restraining apparatus entirely requires that a hospital should be so constructed as to give all the benefits of the most perfect classification; that it should always have a full force of tried attendants and abundant means of exercise and occupation in the open air." The amount of restraint used in the hospital

* Memoir of Dr. Conolly, p. 84.

† Letter from Sir J. Coxe, Commissioner in Lunacy for Scotland, to Sir James Clark, quoted in Memoir.

under charge of Dr. Kirkbride, is perhaps less than in any other American hospital; owing perhaps in part to the fact that a large majority of his patients are drawn from the wealthier classes of society, and whose friends are able and willing to pay for every comfort and convenience.

Elsewhere the Doctor says: "The use of mechanical means of restraint, and the protracted seclusion of patients in their rooms, ought both always to be regarded as evils of no trifling magnitude, and to abate which as far as possible no effort should be left untried. Besides leading patients into bad habits, the frequent use of the means referred to in a ward induces attendants and others to look upon them as a common resource in cases of difficulty and danger, to regard them as their grand reliance in every emergency, and to forget the great power of other measures that are entirely unobjectionable—the value of tact and kindness and sympathy in controlling the violence and dangerous propensities of the insane. Objectionable as I deem the use of restraining apparatus in a hospital for the insane, it cannot be too easily insisted on that it is no advance to substitute the frequent and long-continued seclusion of the patients."*

The advocates of non-restraint do not deny that cases may occur when the use of restraint may be of service. They insist, however, that it should not be resorted to except in a case of clear necessity, and that its use shall only be ordered by the medical officer after personal inquiry, as he would order any other remedial agent.

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* Insanity and Insane Asylums. Report of E. T. Wilkins, M.D., Commissioner in Lunacy for State of California, p. 106.

SECTION IX.

REPORT

OF THE

BUREAU OF OPHTHALMOLOGY AND OTOLOGY.

T. P. WILSON, M.D., ... Cincinnati, O.
H. C. ANGELL, M.D., ... Boston, Mass.
C. T. LIEBOLD, M.D., ... New York.
H. C. HOUGHTON, M.D., ... New York.
MALCOLM MACFARLAN, M.D., ... Philadelphia.
S. WORCESTER, M.D., ... Burlington, Vt.

TO THE

TWENTY-SIXTH SESSION

OF THE

American Institute of Homœopathy.

VOLUME I. NUMBER 2.

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IV.

ASTHENOPIA.

By T. P. Wilson, M.D., Cincinnati, O.

The assignment of the subject of asthenopia for the special consideration of this bureau at this time arises from several facts. Among these may be mentioned the frequency of the occurrence of this disease; the fact that it occupies a ground midway between the specialist and the general practitioner, and is quite as likely to present itself to one as the other; and to both it is a condition by no means well understood.

Stellwag defines asthenopia to be: "The inability of maintaining the adjustment of the dioptric apparatus, or the visual axes for short distances for a length of time, and the hyperæsthesia of the retina and ciliary nerves accompanying this inability."

Mackenzie says, "By asthenopia is understood that state of vision in which the eyes are unable to sustain continued exercise upon near objects, although the patient upon first viewing such objects generally sees them distinctly, can employ his sight for any length of time in viewing distant objects, and presents no external appearance of disease of the eye."

More briefly, the affection is termed "impaired vision," "weak sightedness;" and by those not well informed—and their name is legion—it is called "amaurosis." Regarding the nature of this disease, viewed in a superficial way, we may state the fact of chief prominence to be: good eyesight that cannot be used with success, or without pain generally, upon near objects, but not unfrequently upon any object near or remote. But it must

be obvious to any one at all familiar with the details of this complaint that these definitions, singly and collectively, fail to give a satisfactory expression of its nature. That we have made some advance in its study since specialists have given the subject the attention it has well merited is true, but we are still far from a comprehension of its true character. The discovery of the compound nature of light, by Sir Isaac Newton, was a remarkable advance in science and has led to important results. So in pathology; analysis has enabled us to demonstrate the fact that heretofore our nomenclature has been exceedingly faulty, in that under a single term we have included various states of disease that should have been carefully and differentially separated. And at present no term is more open to this criticism than asthenopia. Ophthalmia, for instance, is a generic term that has no specific meaning until we determine the nature of the inflammation and the particular tissue involved. But not less generic in its character is asthenopia. The inability to use a good eye—that is, good in its power to form correct images upon the retina—except in the manner indicated, may arise from a variety of diverse causes.

Intrinsically the cause may be a faulty form of the eyeball. This is the fact in a majority of cases. An eyeball that is short antero-posteriorly, or in other words hypermetropic, is very sure to become asthenopic if subjected to severe use. Less frequently a short-sighted, that is, myopic eye, is liable to the same affection from the same exciting cause. And finally, under this head, astigmatism may lead to the same result. Upon a careful examination of these cases we generally find either one or both the internal recti have lost their power of prolonged contraction. But among cases produced by these intrinsic causes, we find not a few in which the ciliary muscle is apparently only involved. In a less number the retina is the seat of the disorder, and then we have chiefly photophobia. But in a large number of cases that have been neglected, we have the recti and ciliary muscles and the retina simultaneously involved in trouble.

But anomalies of refraction such as hypermetropia, myopia, presbyopia and astigmatism, are not always found to be connected with asthenopia. Some of the worst cases we are called

upon to treat, show objectively and locally about the eye no modification of structure. And in addition to severe pain in and about the eye generally, quite constant and susceptible to spells of aggravation, we find a serious mental condition that adds no little weight to the sufferings of the patient, and to the difficulties of cure. Such patients going first to the general practitioner, are unfortunately impressed with the idea that they must eventually lose their eyesight. The opinions of injudicious friends give strength to the apprehension, and then fear and despair settled down upon the poor patient, who without these would still have trouble enough to contend with. Upon going to the well-informed oculist, they may be told in emphatic terms that there is no danger of blindness, but it is not easy to create within their terrified minds confidence in this statement.

To be sure if the oculist can supply the needed glasses, and thus remedy the primary cause, confidence and credence will then be readily obtained. But these are not the cases that perplex us. There will remain over and above the curable cases a large number that are not so easily cured.

In the mere functional disturbance of the eye nearly all cases of asthenopia are alike, but in their essential pathological condition they differ very widely, and this fact shows very clearly the faulty state of our nomenclature and radical ignorance we labor under in our understanding of the subject. These cases that show only functional and subjective morbid conditions, do not properly fall wholly within the sphere of the specialist. They belong quite as much to the general practitioner as to the oculist. They need to be better studied by both parties, and in the present state of our therapeutics there is a loud demand for better information upon the causes of the disease and upon the proper mode of its treatment. It might be wearisome to relate the history of cases that come under this head. Our note-books abound with them. It is not our object to present them in detail at this time, but to point out the fact of their existence. Some of them are traceable to uterine and ovarian diseases, some to spinal irritation, some to sexual abuse, and some to nothing in particular. But this does not lessen their severity or lighten the perplexity we have in attempting their cure.

It is proper that we should leave in the hands of the specialist all cases of asthenopia that arise from modified refraction. And in every such case it is essential that we determine the presence or absence of such anomalies, and this the oculist only can do. But once having determined that we have no change in the form of the eyeball, no insufficiency of the muscles—and this term by the way is as properly applicable to the ciliary as to the recti muscles—once determine that we have no hyperæmia or congestion of the retina, and then the case clearly lies within the jurisdiction of the general practitioner.

And here is another fact that presses upon our attention. Even in cases of asthenopia whose primary cause seems to be a modified refraction, glasses fail to do any good. The amount of retinal and ciliary irritation is such that the patient is in distress either with or without a correction of refraction. And if the glasses do afford relief it is only partial; there remains an important supplemental trouble. And the question in these as in the other cases is simply how to reach them in a curative way.

The continued use of atropin, whereby accommodation is put at rest and kept so for a greater or less length of time, has proved in my experience to be of very great value. Another important aid is optical gymnastics, that is, progressive use of vision, beginning, in a given severe case of asthenopia, with a use of the eyes furnished with the requisite glasses for five minutes in reading clear medium-sized print, forenoon and afternoon, then increasing the time daily by just one minute, and when improvement takes place have the sittings three and four times a day.

Medically we get valuable aid from Aconite, Bell., Cactus, Gelsem., Mac., Spigelia, &c., but the sphere of their action is not well defined. It is because after all these agencies have been used we still have perplexing cases that do not get well, that this subject should engage the attention of the profession. A better knowledge of its pathology and a better knowledge of the homœopathic remedy indicated is greatly needed, and if the matter is left wholly in the hands of specialists, our fear is that it will not be properly investigated, for its relations are so much wider than the special studies of the oculist, he is likely to fail in grasping and understanding its true nature.

V.

AN ACCOUNT OF THIRTY-FIVE OPERATIONS FOR CATARACT.

By Malcolm Macfarlan, M.D., Philadelphia, Pa.

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1. *Traumatic soft cataract*, right eye. Mrs. Mary Jones, aged 48; injury received June 1st, 1867, caused by a splinter of wood when chopping; perforation of the cornea and injury to iris and lens. The wound healed, and on November 20th, 1867, the upper corneal-flap operation was performed and the lens extracted without iridectomy as there existed sufficient slit from injury. Iritis was again set up, but controlled by Belladonna. Vision equalled one-sixteenth, but gradually became less, and in six months was lost entirely from defective retina, without any external evidences of inflammation.

For the next two years I kept no regular record of my cases, mostly performed at the college, and consequently am unable to give particulars as to name, history and amount of vision; they were all flap, not linear operations, without iridectomy. In this report I have excluded needle operations, or those by discision alone.

2. *Hard cataract*, left eye. Sarah Rodgers, aged 61; June 10th, 1869. In poor health, affected greatly with rheumatism; flap extraction without iridectomy; irido-choroiditis; corneal flap healed nicely without collapse of the globe; no vision.

3. *Hard cataract*, left eye. July 3d, 1869. Mrs. Morrison, aged 64, 9 Allison Place. Woman was bed-ridden from general debility; other eye greatly dimmed from incipent cataract. Ex-

traction by linear method; vision measured with Snellen's type equals two-fifths; shown to the class the following winter with no deterioration in acuteness of vision.

4. *Lenticular cataract*, left eye. The right eye previously collapsed from disease. July 23d, 1869. Mrs. Hester Hook, aged 65, 12 Duponceau Street. General health poor. Extraction by the linear peripheric method; lens removed in its capsule; vision equals one-half. The most satisfactory case I had hitherto had; no ciliary pain; bandage removed in six days.

5. *Senile cataract*, both eyes. Mrs. Graham, aged 73. August 11th, 1869; 1509 Spring Garden Street. Lens removed from the left eye by the linear method; general health bad; subject to chills; destructive iritis; no vision.

6. *Hard cataract*, left eye. March 19th, 1870. Mrs. Thompson, aged 72; patient of Dr. Edgar I. Pusey. Von Graefe's operation; fluidity of vitreous; dislocation of lens upwards and backwards; panophthalmitis; no vision; collapse of the eyeball.

7. *Hard cataract*, right eye. March 27th, 1870. Sarah Peters, aged 72. Extraction by Von Graefe's method; case progressed finely without a bad symptom; bandage removed in five days; vision, according to Snellen, equal to one-third.

8. *Soft traumatic cataract*, right eye. October 14th, 1870. Boy, aged 16, patient of Dr. C. E. Toothaker, 1711 North Street. Needle operations on cortex and subsequent corneal section for extraction of nucleus; vision equals one-third.

9. *Hard cataract*, left eye. January 17th, 1871. George Bogt, aged 49. Extraction by the linear peripheric method; general health bad; in a very weakened nervous condition; subsequent violent ciliary pain relieved by Mezereum; vision equal to one-sixth.

10. *Lenticular cataract*, left eye. February 14th, 1871. Mrs. Lybrand, aged 65. Extraction by the linear method; lens removed by the tortoise spoon; little pain after the operation; vision equalled two-sevenths.

11. *Hard cataract*, right eye. February 18th, 1871. Samuel Burgess, aged 50, partially blind for two years. Lens extracted by the peripheric linear method, with no inflammatory sequences;

bandages removed on the fifth day; vision equal to one-third, and remains so at this date, June 1st, 1873.

12. *Senile cataract*, right eye. February 21st, 1871. Mr. R. Peters, aged 70. Extraction by the usual corneo-scleral section; no ciliary neuralgia beyond an occasional single darting pain at long intervals; bandage removed in five days; vision equalled two-fifths.

13. *Hard cataract*, both eyes; right operated on; been blind four years, and for two years past has to be led by the hand. May 10th, 1871. Mrs. Elinor Margerum, aged 65, 1509 Wood Street. Sclero-corneal section; lens removed in its capsule; no resulting pain; bandages changed daily, and removed altogether on the fifth day; vision equalled two-thirds; has now sight good enough to read the daily papers with ease wearing a six-inch convex glass.

14. *Hard cataract*, both eyes. May 23d, 1871. Mr. Pettengill. Operation on the left by Von Graefe's method; iris was attached to lens; destructive iritis and corneitis; no vision.

15. *Hard striated cataract*, right eye. July 5th, 1871. Henry Baker, aged 64, patient of Dr. J. B. Wood, Westchester, Pa. Extraction by the linear method; subsequent needle operation on capsule; vision now equals one-half. The other eye had been operated on unsuccessfully by a well-known oculist of this city.

16. *Cataract*, left eye. August 23d, 1871. James Hill, aged 79, Fifty-Sixth Street and Fisher's Avenue, West Philadelphia. Lens in capsule removed entire; lenticular substance soft; milky in appearance; no nucleus; absence of ciliary pain; acuteness of vision equals two-thirds.

17. *Stellate hard cataract*, both eyes. September 27th, 1871. William Bush, aged 37, Pottstown, Pa., patient of Dr. L. Hoopes. Von Graefe's operation on left eye; soft cortex; hard nucleus; case progressed without a bad symptom; vision equals two-thirds; he can to-day see with a four-inch convex-glass as well as ever he did. He had been unable to distinguish objects for the previous two years.

18. *Hard cataract*, left eye. October 18th, 1871. Mrs. Mary Smith, aged 55, Salem, N. J. Lens extracted by the linear

method; violent iritis ensued, resulting in partial success only; vision equals now about one-tenth.

19. *Traumatic cataract*, left eye. October 27th, 1871. James Reary, aged 20. Injury received some five months before; lens removed by making a conical flap; hard nucleus; soft cortex; considerable iritis, relieved by Belladonna; vision equal to one-third.

20. *Hard cataract*, right eye. October 24th, 1871. Samuel Weyant, aged 78, 1115 Marlborough Street. Health much broken down; tremulous; lens removed by Von Graefe's method; successful result, vision being equal to one-third.

21. *Traumatic soft cataract*, left eye. November 7th, 1871. Patrick Gallagher, aged 16, 11 North Forty-Seventh Street. Caused by a small piece of chipped steel piercing the cornea and lodging in the lens substance; cataract removed by corneo-scleral section with excellent result; vision, according to Snellen's type, equal to two-fifths.

22. *Soft cataract*, left eye. February 15th, 1872. Miss Wilkins, aged 14, 715 North Twentieth Street. No nucleus; opacity a sequence of violent panophthalmitis; lens extracted by corneal-flap method; section healed nicely; no sight because retina was lost; eye retained a perfect appearance.

23. *Double senile cataract.* March 22d, 1872. Mrs. Watson Barnes, Bustleton, Pa., a patient of Dr. W. C. Powell. Operation on the left eye; extraction by the linear method; hard nucleus; no vision because of amaurotic condition.

24. *Hard stellate cataract*, right eye. September 20th, 1872. Mrs. Susanna Derrickson, aged 49. Extraction of the lens by Von Graefe's method; one of my best cases; bandage removed on the fifth day, with vision eventually, that is, in three weeks, equal to one-half.

25. *Lenticular cataract*, left eye. October 25th, 1872. Mrs. Mary Saper, aged 57, from Pottsville, Pa. General health bad; lens removed with capsule by usual method; sloughing of the cornea; no vision.

26. *Senile cataract*, left eye. August 28th, 1872. Mrs. Sarah Luzby, aged 74. Very poor health; nervous; debilitated; iris appears diseased and not sensitive to light; its pupillary margin

atrophied; Von Graefe's operation; destructive iritis; no vision; the right eye lost some two years before from ulceration of the cornea with perforation. After the operation it was found that the retina was incapable of performing its function consistent with useful vision.

27. *Double lenticular cataract.* September 19th, 1872. Mr. John Robison, aged 57. Lens removed from the right eye by the modern method; vision was equal to one-sixth for awhile; fearful ciliary pain was developed, and sight eventually lost; of late years his nervous state resembled one with a mild attack of chorea; has been of late years a martyr to wandering electric pains in various parts of his body.

28. *Hard striated cataract,* right eye. November 19th, 1872. Mrs. Sarah Scott, aged 78, has been able to distinguish light from darkness only for the past seven years; general health good; lens removed by the linear method; cornea at first took on inflammation, becoming clouded, but eventual good result, with vision of one-sixth.

29. *Hard cataract, with glaucoma.* April 2d, 1873. Rev. Henry Miller, Mauch Chunk, aged about 50. Right lens removed by Liebreich's method, without iridectomy; resulting iritis and corneitis, relieved by Rhus and Belladonna; partial success; when he left town vision equalling one-thirteenth. I have since learned that iritis has been again developed, and no doubt will end in loss of vision, because of changes in the retina.

30. *Soft cataract with small, hard nucleus,* left eye. January 7th, 1873. Thomas O. Brien, aged 28, Salem, N. J. Lens extracted by Von Graefe's method; great chemosis of the lids supervened on the fifth day, with corneitis afterwards; no vision.

31. *Soft cataract,* right eye. May 6th, 1873. George W. Palmer, 2031 Starr Street; aged 37. Discision and removal of nucleus; no complications, and very little ciliary pain; vision now equals more than one-half; all traces of inflammation are fast passing away.

32. *Traumatic soft cataract,* right eye. March 1st, 1873. James Thompson, aged 14; patient of Dr. Barden, West Philadelphia. Struck in a stone fight. Preliminary needle operation, and removal of nucleus and capsule; no violent inflamma-

tory symptoms developed during the treatment; vision now equals two-fifths.

33. *Traumatic cataract*, left eye. Evan Fisher, aged 49; employé of Reading Railroad, Pottstown, Pa. Struck by a chip of steel, piercing the cornea, and injuring the iris and lens; large iridectomy, and operation three weeks subsequently (May 14th, 1873); vision now (May 29th, 1873) equals one-third, with disappearance of sympathetic ophthalmia in other eye.

34. *Lenticular cataract*, left eye. May 1st, 1873. Mrs. Mason, aged 56; patient of Dr. Earheart. Iris adherent to capsule; lens extracted by Liebreich's method; violent iritis and corneitis relieved by Mezereum and Belladonna; partial success; vision equals one-thirteenth.

35. *Double hard stellate cataract.* May 20th, 1873. Charlotte Quinney, aged 57; Burlington, N. J. Lens had been removed from the right eye by Liebreich's method; prolapse of the iris took place, with adhesion on the corneal wound. After I made a free iridectomy useful vision was restored, and equal to one-sixth.

During the seven years there are at least ten additional college cases omitted from these thirty-five, of which I have preserved no memoranda as to name and result. This list, as it stands, is, as far as I know, greater than that presented by any surgeon who practices homœopathy, or institution under homœopathic treatment; and although the results would have been better with a more skilful and experienced operator, I am confident that operative skill being equal, the advantage is largely with the homœopath in the after-treatment, by discarding cold water, ice, instillation of Atropin, Morphia, leeches, &c., in ciliary pain, and using sponges, or flannels wrung out of hot water, and generally Mercury, Belladonna, Rhododendron, or Mezereum, according to verified indications. I seal the lids with goldbeaters' skin, and fill the hollow at the internal angle of the eye with finely picked charpie, secured by a pressure bandage of elastic flannel, or several turns of a narrow elastic roller, changed daily, and usually removed altogether in a week, using a handkerchief thereafter.

Von Graefe's operation has been so often and well described that repetition here is unnecessary; but when the lens cannot be

made to escape, as it usually does, by pressure on the opposite side of the wound, I employ a fine loop of steel or the ordinary curette, and scoop it out. I have not particularly mentioned several subsequent needle operations made necessary by persistent capsule. The given amount of vision for distance, measured with the proper convex glass, was usually taken at the close of my attendance, and of course was less than it ultimately would be, in many cases.

VI.

ON THE USE OF GLASSES.

By T. P. Wilson, M.D., Cincinnati, O.

There is imperative need that the public and the profession should be better informed of the right use of these valuable aids to our sight. As matters stand now, it is pretty generally understood that old people need glasses. It is less generally understood that near-sighted people need glasses, but in these cases it is believed that the use of them had better be put off, in order that the eyes may get better by unaided exercise. Beyond this few physicians, and almost no laymen, have any knowledge of any further use of glasses. Nothing is more common than the belief that far-sightedness is a proof of strong sight. Sir, or madam, your eyes are bad, and you need glasses. Nonsense, doctor; I can see farther than most people. Well, how would you hold this book in order to read well? Why—holding it at arm's length—I can read it easily at that distance.

This sort of colloquy is an everyday occurrence with the oculist. If he insists that this kind of vision is a strong proof of an inherent weakness of the eye, he finds he has undertaken no indifferent task. If his declarations are accepted, it is done under a mental protest that the doctor is making his case in opposition to very plain facts.

Only the observant oculist knows how very common it is to find oversighted, or to speak technically, *hypermetropic*, eyes. Not often before they break down under the labor of study and work do they come under professional observation. Naturally enough such patients first apply to their family physician. Were their eyes seriously inflamed, or the eyeball changed in appearance, or the sight obviously endangered, they would most likely place themselves in the hands of an oculist. As it is, they seek

what they deem the easiest mode of relief. Now, looking at such an eye in the way the general practitioner looks at most things, he would be wholly in the dark concerning the nature of the trouble. He might turn the lids if he dare and could do such an heroic act, he might look into the anterior portion of the eye, and finding the parts natural in appearance, the iris responding promptly to the action of light, he could only vaguely guess out the pathology. Or in sublime contempt of pathology, he might think it best to get at the totality of symptoms, or to discover the key-notes, and prescribe accordingly.

There cannot be any primary trouble about the eye, for is not this the history of the case? Says the patient: my sight has always been good, better, in fact, than that of most people. And now my sight is good enough but it has no endurance. For a little while I can read or work as well as ever, but presently I have pain in my forehead, over the eyes and in the temples, sometimes in the eyeballs. I get no relief until I quit using my eyes. When they are at rest they give me no trouble. In another case, after continued use, the sight becomes blurred, light is painful, especially in the evening, and the eyeballs at times are sore. What says the doctor? Your eyes look well enough; they are sympathetically affected. Gastric, uterine and nervous affections are at the bottom of your troubles. Cure these and your eyes will be well also. Or this may be the information given. Your retina is inflamed, or your optic nerve is paralyzed, or you are having amaurosis come on, and in either case you need constitutional treatment.

It's a pity, say sympathizing friends, for you, with such good-looking eyes, to go to an eye doctor. Most likely he will put your eyes out. Why, I had an aunt, and she had just such eyes, and they were doctored, and now she is blind.

Let us look at another phase of this same trouble. The patient has kept at work, using the eyes until, from overexertion, they have become externally congested. The ball and lid are reddened and puffed, vision is continually blurred, and light is constantly painful.

What says the doctor again? You have granulated eyelids. They must be daily turned, and treated until you get well.

Let me introduce another case, unfortunately very common in our large cities. A scholar, in good general health, finds the sight failing and suffers concomitant symptoms. After being doctored by the family physician for several months, the case getting constantly worse, the child is taken out of school. Of course this gives relief. Six months or a year are lost, and then studies are resumed, but the same evil consequences return.

No department of ophthalmology is more fruitful of cases than this. They present themselves daily, in our private practice and in our clinical rooms. They are constantly illustrating the lamentable want of knowledge on the part of the profession and the public. And when rightly treated they show how small and simple a thing, rationally applied, can remove seemingly great and obscure troubles.

That a foreshortening of the eyeball, a congenital defect, in consequence of which the antero-posterior diameter of the eye is comparatively short, may be, and is, the cause of all this trouble, is a fact not yet incorporated into the belief of many both in and out of the medical profession. Yet no fact addresses itself more readily to our understanding when we come to give it careful study. And the demonstration of it is as simple as the fact itself. The flattening form of the eyeball is obvious at a glance. The shallow depth of the eye, apparent under the ophthalmoscope, and the evident farsightedness, are sufficient to establish that fact in any candid mind.

Having reached this point in the investigation of such a case, it will not be difficult to see the rational indication existing for the use of convex glasses. But just here you meet your first difficulty in applying the remedy. If the hypermetropic eye has not yet shown signs of failing under use, you can hardly convince any one of the necessity of putting on spectacles. Their use does not of course improve the sight, and wherefore should they be used? A lady presents herself suffering slightly from overworking of the eye; you recommend glasses, and she instantly rebels. Her pride is touched, and before she will consent to disfigure her fair features she will do nothing, or worse. But again, in consequence of long abuse of the eyes a serious train of evils has been set in motion. Congestion of the retina and conjunctiva, photo-

phobia and pain have all been induced. You recommend first of all the use of spectacles, but they do not remedy the entire difficulty. They are in fact painful to the eye when worn. You have in such a case to supplement constitutional treatment. And this not being always attended with immediate beneficial and brilliant results, renders it difficult to induce the patient to persist in the use of glasses.

Another and an opposite error is likely to be committed by the same parties, through the want of a better knowledge of the proper uses of glasses. We have not long been in possession of a correct understanding of the facts concerning progressive myopia. Congenital shortsightedness is well known to be chiefly due to the form of the eyeball, and everybody knows that concave glasses will remedy the defect. But that eyeballs congenitally well formed should slowly and imperceptibly acquire a myopic condition was a fact generally overlooked, and never well understood until it was studied under the ophthalmoscope. Without professional consultation, such cases having reached such a point of development as to enforce attention, are generally sent to the optician and furnished with glasses. But this may only complicate and render worse what before was bad enough.

It should be generally and better understood that these cases are due to an insidious form of disease acting upon the deeper portions of the eyeball, resulting in organic changes in the structure of the sclerotic and choroid. This might wholly escape observation but for the gradual increase of shortsightedness. Primarily, the disease is doubtless constitutional, but it is greatly accelerated by improper use of the eyes. Children studying over low desks and in imperfectly lighted school-rooms, seamstresses and workmen upon fine and delicate tasks, are sure to seriously aggravate the disorder.

It is needless to extend this discussion further. I have purposely stripped it of all technicality in order that it might successfully appeal to all those who should be interested in it. The considerations involved are weighty, and their neglect by the public and the medical profession is a source of daily astonishment and pain to the oculist.

VII.

CLINICAL CASES IN OPHTHALMOLOGY.

By C. H. Von Tagen, M.D., Cleveland, O.

Diphtheritic Conjunctivitis.—Rarely is this form of eye malady witnessed in this country, or in England, but it is stated on good authority that Von Graefe's clinics at Berlin have furnished numbers of cases.

It has been my privilege to see but two cases during the past fifteen years; the first one of which I saw some eight or nine years ago, while attending the clinics at Wills Eye Infirmary in Philadelphia. The result of the treatment I did not afterwards learn, but from what I saw of the case, I inferred there was very rapid destruction going on; for instance, the cornea had been perforated, and prolapsus of the iris and more or less collapse of the anterior chamber had followed. It is therefore reasonable to assume, from such a state of affairs as the above, that vision must have been seriously involved. Here I lost sight of the case, and know nothing further of it.

Some four months ago I was called upon to treat a case, of which the history is as follows: An Irishman, by occupation a day laborer, of irregular habits (would go on a bit of a spree occasionally; in fact, at the time he applied at my office for treatment he gave evidence of being under the influence of liquor), living in a small, damp, ill-ventilated house, and addicted to the use of large quantities of inferior tobacco. To credit the patient's story, the eye became sore in a single night,

and presented on the following day great swelling and hardness of the lids, which were also very firm, hot, and exceedingly sensitive to handle, or even to touch. The patient was very loath to permit me to turn the lids out, and it was with some difficulty that this could be accomplished. As the lids were everted a stream of hot tears gushed out, mixed with pale yellowish flakes of fibrinous material. There was marked chemosis, of a pale yellowish color; infiltration was marked throughout the eye, of a firm fibrinous nature. Over the palpebral portion of the conjunctival surfaces, both upper and lower, a thick, opaque membrane was formed, which could be detached in small patches and shreds. There was very much extravasation of blood over the entire ocular conjunctiva. The cornea was invaded by ulceration at three distinct points, the largest as well as the deepest of these being at the centre. For several days the latter threatened to penetrate into the anterior chamber, and indeed this seemed at one time the inevitable result. A close and careful examination of the ulcer specially referred to revealed a slight bulging forward at its base;—this feature I lay stress upon to prove that my fears of perforation setting in were not groundless.

I placed the patient upon Merc. bijod., 6th trituration, a dose every three hours during the day, and at night, if wakeful, which he was for several nights. The eye was ordered to be syringed out carefully, two or three times daily, with water as hot as could be borne, after which the inner surface of the lids were pencilled, morning and evening, with a weak solution of Argent. nit., gr. ss. to Aqua pura, ℥j. The patient was kept in a darkened room, and prohibited from using the sound eye for any purpose.

Under the treatment stated the patient slowly but steadily improved until the close of the third week, when he returned to his home convalescent, promising to report to me if a relapse should occur. This promise I exacted from him because of his leaving the hospital, in which I had him placed, sooner than prudence would dictate. After the ulcers had healed and cicatrized, the result was a condition of the cornea known as albugo. Especially was this the case at the centre. These spots will al-

ways remain, and vision is considerably impaired thereby. The great danger to be feared in this affection is the tendency to rapid destruction of the cornea, and unless promptly met in the outstart and arrested, vision must be sacrificed. Everything, therefore, that has a tendency to irritate the inflamed organ, or depress the vital forces, must be avoided. Light must be excluded, the patient's room well ventilated, the temperature moderate (about 55° to 60° F.), strict cleanliness both of wearing apparel and body must be rigidly enforced, and everything the patient uses, in any shape, form or manner, should be kept separate and apart from those of other persons. The patient should be assigned to a separate apartment. The diet should be highly nourishing, and in some cases generous and even stimulating.

Topical Treatment.—Frequent ablutions with water as hot as can be borne, and compresses of old flannel wrung out of hot water, frequently and rapidly changed, are the best applications during the day. The best and most effectual method of cleansing the inflamed organ is by means of a small syringe, the lids being kept separated by an assistant. The attendant should adopt some precautionary measure to prevent the splashing into his own face of the fluid from the patient's eye, and for obvious reasons.

At night poultices made of pulverized flaxseed, to which add two teaspoonfuls of brewer's yeast, and then apply as hot as can be endured; the greater the heat the speedier relief follows. The poultice should be spread between two layers of old, soft linen, so that a layer intervenes between the inflamed part and the poultice itself. This application serves to cleanse and keep moist the lids, and thus prevent agglutination, a very troublesome condition, besides which, the patient can obtain more refreshing rest and sleep.

The patient should be cautioned not to use any cloths or towels in wiping the sound eye that have been used for the diseased organ. Every precaution that can be resorted to should be used to prevent the discharges from the affected eye being transferred to the sound one. So profuse are these in some cases that the bridge of the nose will form a conduit for the same, especially if the patient lie on the side opposite the affected eye.

As an additional precaution, it would be well to protect the sound eye with a compress, covered over with a piece of oiled silk and secured by means of adhesive strips; this can be removed when the patient is erect or sitting up.

OPHTHALMIA TARSI (Blepharitis marginalis). E. G., aged 24, presented himself some six weeks ago for treatment, with highly inflamed lids, very much thickened and infiltrated; the cilia were matted in bunches along both upper and lower tarsal margins of both eyes; lachrymation profuse, and of a mucopurulent character; nightly agglutination, with severe burning pain, and particularly at night. The tegumental surface in the vicinity of both eyes, especially of the lower lid, was much irritated, caused by the acrid properties of the discharge, giving to the parts the appearance as if they had been seared over with fire. The burning and itching at times were described as intolerable, so that the patient could not refrain from rubbing. The tarsal margins were thickened, red and glazed, with here and there a small white pustule at the root of a cilia; this latter condition is technically termed "tylosis." Dr. McCall Anderson, in his treatise on skin diseases, regards it as a form of "pustular eczema" (impetigo). The Meibomian glands were enlarged, giving the margins of the lids the appearance of irregularity, and conveying a sense of grit or sand in the eye. The conjunctiva throughout, especially the palpebral portion, was red and injected, and the puncta prominent and standing outward. Vision was more or less impaired, objects looking dim and as if enveloped in a halo or mist. The eyeballs felt tense and painful to pressure, and also very sensitive to light.

The following history of the case was furnished by the patient. In early childhood he was seized with convulsions, resulting in effusion ("had water on the brain"). Some charlatan, living in the neighborhood of his father's residence, then in the State of Maine, undertook to treat the case. In the course of the treatment he administered a large quantity of a white powder, and for a considerable length of time, which produced ptyalism and sore mouth, the teeth became loose, the glands of the mouth and neck swelled. The whole system participated to a considerable extent in the disturbance; the integument at various points over

the body became very sensitive and painful, presenting a red and inflamed appearance in circumscribed patches of various sizes, from that of an inch or two square to that of an ordinary table saucer. These patches would scale off in a few days, leaving a tender, raw surface, not unlike that resulting from a blister; emaciation ensued, and after a time the finger nails would shed off. Subsequent admission on the part of the professed doctor proved the powder he had administered to have been calomel. Almost yearly since (now some eighteen years) the patient has undergone a repetition of these symptoms, and invariably the eyes have participated in the general disturbance.

Some attacks have been very much more severe than others, varying not so much in character as in intensity. Within the past two years the patient has been afflicted with an unusually severe attack, prostrating and confining him to bed for a period of six months. During this siege a large portion of the body was denuded of integument for several weeks; his sufferings, judging from his own words, were intense, and his mind at times wandered in consequence thereof.

At the time the patient came into my hands his symptoms pointed to Sulphur. I prescribed three doses, 51^{m}, and for two days following the patient reported himself improving. On the following day (the third after the administration of the Sulphur), he presented himself stating that he was almost crazy, and feared one of his bad attacks was coming on. Up to this time I knew little or nothing of the antecedents of the case. I now learned all I have heretofore narrated, and accordingly set to work to overcome the mercurial cachexia so markedly developed in this case.

He complained that the medicine had made him worse, and his appearance indicated it. Both eyes (and the lids) looked terribly inflamed, and his face was very much flushed, skin very hot, tongue dry, pasty, with taste as if brass or some metal had been in his mouth, and thirst. He stated that he felt the change come over him during the previous night, his eyes having discharged much more freely; in the following morning the lids were agglutinated and covered with a thick crust.

Remembering now the beneficial and prompt effects I had obtained from Merc. corr. on former occasions of a like nature,

I administered the remedy in the 200th potency (three doses at intervals of three hours apart), and allowed it to act for a few days. In addition, I ordered the eyes to be poulticed every night with hot flaxseed, with a view to prevent agglutination and the formation of crusts on the lids, and thus assist in allaying the great irritation of the eyes, which it seemed to do. The poultice was spread between cloths and thus applied, and not directly to the part, a layer of cloth intervening. From this time forth the effect has been exceedingly gratifying, improvement having been both rapid and effectual. About two weeks ago a temporary aggravation occurred in the eyes, which was attributable to an indiscretion on the part of the patient, who went fishing, and had his eyes injured by the reflection of the sun upon the water. The other symptoms, however, did not return, and the patient soon recovered again under the influence of a few more doses of the corrosive mercury.

TRAUMATIC RUPTURE OF THE CORNEA.—Mrs. S., æt. 29, the mother of two children, met with an accident in childhood. A common table fork by some means was forcibly propelled toward her, point foremost, striking and penetrating the cornea, in which position the weapon remained for some minutes and was then removed, as the patient states, by herself. After some weeks of suffering the eye finally healed, with loss of vision, and remained thus for a period of twenty-three years. A dense and large cicatrix (horizontal in direction), being left, involving more or less the entire corneal opacity.

Early in December, 1872, the patient tripped over a piece of loose carpet, and pitched forward violently, striking the eye across the back of a chair, bursting open the impaired cornea, the rent being along the track of the old cicatrix. This was followed by an immediate escape of some of the humors of the eye, which carried with them a large portion of the iris, a considerable portion of which became prolapsed. A physician was summoned, who applied some opiate lotion, giving internally sulph. morphia for the purpose of allaying the great pain under which the patient was laboring. After several days thus spent in fruitless efforts this medical attendant was dismissed and another one summoned, who after four or five days' trial was disposed of in

the same manner, his efforts having been attended by no better success than those of his predecessor. At the time the patient met with the last mishap, she also struck her right breast, from which she had been suckling her infant, some three months old. The gland being of large size and actively secreting at the time, was in no condition to resist the effect of the blow and in consequence it gathered. This complication, as a matter of course, added much to the patient's sufferings; the left breast, for some reason not explainable, had long before ceased to secrete milk.

Some nine or ten days after the accident, I was summoned to the case and found the patient much reduced; her sufferings had been so great and her nervous system so unstrung, that she trembled and started if spoken to ever so gently. The slightest ray of sunlight admitted into the room would cause her to shrink back with dread and fear. Her pulse was 135; subsultus tendinum was present particularly of the upper limbs; her tongue was heavily furred, dry and pasty; she had no appetite, had not partaken of food excepting milk since the accident, and desired none. No sleep had visited the patient's eyes since the date of the accident, except dozing but a few moments at a time, from which she would awaken with a sudden start. She had vomited several times since the accident, and complained of very severe neuralgic pains all over the face and head; there was not a point on either that could be touched ever so lightly without causing her to cry out with pain. To be brief, I never saw a case throughout my experience in medicine, in which the nervous system was so completely unstrung.

After fruitless efforts to get a view of the eye, on account of its extreme sensitiveness I was obliged to desist, and left some Gelseminum, 1st dilution, to be given in water (ten drops of the former to ½ of a glass of cold water, a dessertspoonful every fifteen minutes until relieved). I ordered compresses of soft flannel, to be wrung out of hot water, to be applied, and rapidly renewed, as soon as they could be borne, which was accomplished the evening of the same day. The breast was ordered to be poulticed with pulverized flaxseed. I called on the succeeding day and succeeded in obtaining a view of the eye, which was very much distended and congested. The wound through the cornea

looked ragged, the iris protruded, the lids were œdematous and swollen. The patient had passed a more quiet night under the use of the Gelseminum and hot water applications, but slept very little. During this visit I succeeded in getting into the eye a drop or two of Atropin in solution, one grain to the ounce. Hot-water applications were ordered to be continued, also the Gels. This treatment was continued for three days, followed with marked improvement as regards the eye, which could be examined now quite freely. The affection of the breast, however, was growing much worse, and suppuration seemed inevitable. I gave Hepar sulph. 6th to hasten the process, which it did, for in a day or two the abscess broke and discharged very freely.

Two days following the eye symptoms grew worse again; these, however, yielded to the Gels., and the patient passed rapidly on to recovery.

The protruding iris is likely to produce trouble in the future, and there is but one channel through which permanent relief can be obtained, and that is by means of an operation, "abscission of the cornea and iris." To this the patient will not consent.

The only point of interest in this case is the rarity of the accident, and the prompt and effectual relief obtained from the administration of the Gelseminum, notwithstanding one of the principal exciting causes still remained, viz., the protruding iris.

SECTION X.

REPORT

OF THE

BUREAU OF MEDICAL LITERATURE.

GEORGE E. SHIPMAN, M.D., ... Chicago.
S. LILIENTHAL, M.D., ... New York.
S. A. JONES, M.D., ... New York.

TO THE

TWENTY-SIXTH SESSION

OF THE

American Institute of Homœopathy.

VOLUME I. NUMBER I.

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I.

THE MEDICAL LITERATURE OF 1872.

By Samuel Lilienthal, M.D., New York.

As the time of our yearly meeting for mutual instruction and encouragement comes around, it will be well for us to pause and examine the interval since we last met, and ascertain whether anything has been done (and if so, what) by the physicians of our school for the advancement of medical science and art in general, and especially for the advancement of homœopathy, as the branch of medical science intrusted to our watchfulness and care.

As an art, homœopathy is prosperous; for the number of our patrons is steadily increasing, and even our younger members are proud of their successes gained in their daily practice by and through homœopathic prescriptions.

But how does our literary balance-sheet stand? The indicators of literary activity point to two sources from which we may form an opinion, viz., the publication of journals and of books, for it is an axiom in trade that demand and supply regulate one another.

I consider it our duty to thank our publishers for the liberal spirit which they so steadily have evinced towards us as physicians. The name of William Radde will forever deserve to be remembered by homœopathic practitioners. He alone knows what sums he sunk in the early days of homœopathy, when its practitioners were so few; and even at this day it may be re-

garded as a somewhat hazardous undertaking to publish homœopathic works, for even with small editions the supply of our best and standard books and journals is too often larger than the demand.

Our American journals have gone on in the even tenor of their way, appearing regularly, and, we may say with pride, not only compare well with the journals of other nations, but stand high in the estimation of the editors and readers of foreign journals, as the continuous translations from them satisfactorily indicate. With the beginning of the year 1873 three new homœopathic magazines appeared. As they are yet in their infancy we must deal lightly with them, and hope that they may take a high stand in the periodical literature of medical science and art.

England gives us, as formerly, three equally good and valuable journals, the quarterly and the two monthlies. To those whose means do not allow of their subscribing for these three periodicals, we would recommend the taking of the *Monthly Homœopathic Review.*

In Germany, Hirschel is still at the head of the *Klinik.** Kafka took the place of the lamented Meyer, as editor of the *Allgemeine Homœopathische Zeitung,* but the journal does not seem to flourish as it formerly did. Dr. Willmar Schwabe has commenced the publication of the *Internationale Homœopathische Presse* and the *Populäre Zeitung,* the former being for the profession and the latter for the laity. These are doing good work for the cause of homœopathy, but their influence would be far greater if they were supported at home and abroad as they deserve to be.

In Italy we have now four journals, in Spain three, in France half a dozen. To those who understand the French language we would recommend the *Bulletin de la Société Medicale Homœopathique* and the *Bibliothèque Homœopathique* as worthy of their support.

In reality a physician cannot keep too many journals. Money expended for them is invested at good interest. Many a time, when the busy practitioner is tired from labor and from study,

* Dr. Hirschel has died since the above was written.

a journal will be a refreshing stimulant to the weary mind. But to render our journals what they ought to be, not only subscriptions, in order to defray expenses, are necessary, but hearty co-operation is needed, and then only, when each of us takes a kind of parental pride in the journals of his choice, will they become the great standard-bearers of our school. "Excelsior" is the device of your editorial managers, but you must aid them actively, and not simply passively, to make their columns as they should be.

The second indicator of literary activity is found in the number and quality of the books published during the year.

Hale, Ludlam and Franklin have done their share towards making a good record for the year. The fact that they are all three Western men is creditable to that section of the country, and should rouse a spirit of emulation in the physicians of our school who reside in the Eastern States. In truth, the East has done but little during the past year to add to the value or quantity of the literature of our school. Let us then thank those from the West for their valuable additions to standard homœopathic literature.

Of works published in the German during the year 1872, by far the most important was Dr. Schwabe's "Pharmacopœa Polyglottica," which has been adopted as the standard authority by the German and Hungarian Institutes of Homœopathy. The underlying idea of the work is to give unity to the homœopathic pharmacotechnic, according to rules laid down by Hahnemann himself, or according to the latest scientific researches, and the author never forgets to notice the source from whence any improvement emanates. We find but two faults with it, viz., isopathy is strictly excluded, and secrecy in the preparations of high potencies is still complained of, which latter is unjust, inasmuch as the one hundred thousandth must be made upon the same principles as are lower potencies, and is thus made. The work is printed in English, French and German, and ought therefore to have a rapid sale even in this country.

Kruz, a veterinary surgeon of thirty years' practice, has published his experience in a neat volume, which in bulk stands far behind the work on veterinary practice, published in the English

language by Boericke & Tafel (name of the author not given). The diagnosis, in the little German work, is given in a clear and concise manner, and only such remedies are recommended as experience has proved to be valuable. Through the whole work the author shows that he is a student of Rademacher, whose ideas are again in the ascendant. It would be worth while to clothe these now obsolete works in our vernacular, if we had not the promise that Grauvogl, in the promised second edition of his great work on homœopathy, intends to combine the researches of Rademacher and Hausmann with his own. We almost feel pleased that the stereotype plates of Grauvogl's first English edition were destroyed by the great fire in Chicago. Let us give Dr. Shipman all encouragement, that others may also enjoy the grand ideas of the champion of homœopathy.

Goullon, Jr., the worthy scion of his justly celebrated father, published, last year, two prize essays of more than ordinary value. In his monograph on *Graphites* full justice is done this remedy, our grand antiherpetic polychrest. After giving us its relations to constitutional diseases he compares Graphites with other analogous remedies, as Puls., Plat., Sep., Kali carb., Sulph., Lyc., Carb. veg., Ars., and finishes the whole with most valuable clinical observations.

In his prize essay on *Diabetes Mellitus* we are glad to find that he stoutly denies the incurability of this disease, and therefore warns against the "let alone" policy in consequence of which many physicians fold their hands after diagnosing melliturią. In the pathological part he gives us the oldest as well as the latest views about the origin of the disease, as disturbed or morbid innervation, Pavy's hepatic amylon in the blood, &c., and finally acknowledges that the causes may be central as well as peripheral. The examination of the urine is given according to the latest methods, and the symptoms of the disease explained according to the latest researches. In the therapeutical part he justly sides with Frerichs, that there are genetic differences in diabetes, and that the sugar in the urine is only one of the many symptoms characteristic of the disease. The totality of the symptoms and strict individualization are therefore necessary, if we wish to benefit our patient. Dietetic and hygienic rules close

this monograph, which ought to be in the hands of every German-reading physician.

Our report is finished. No new works from England or France; three or four from Germany; three or four from the United States. The supply is short according to the demand for books. Are they too high-priced? By no means; for the inhabitants of this blessed country can afford to spend a part of their income for literary labor; and even our rising practitioners spend many a fee for luxuries which might be better applied. Is there no taste for literary labors? We put the question, but leave the answer to be given by others.

II.

THE PRESENT NEED OF HOMŒOPATHIC LITERATURE IN AMERICA A PUBLISHING SOCIETY.

By S. A. Jones, M.D., New York.

Prosperity is the severest test of character. Homœopathy in America has been tried by this test and is daily being found wanting. To explain this seeming paradox and to suggest a remedy is the aim of this report.

The writer has had occasion to attend consultations in various localities within a radius of ninety miles from the largest city on this continent. Whenever opportunity offered he has examined the library of the practitioner whom he had met at the bedside. A beggarly display of medical literature has been the rule, although gratifying instances of profound culture have been met and are indelibly remembered.

In one instance the physician's sole work on *Practice* was a worn copy of Guernsey's *Domestic*, and, at the time when the writer saw it, the owner thereof was the "Orator" of the Homœopathic Medical Society of his State.

In the instances of these limited libraries the works have almost invariably been such as would aid their owner more in the practice of medicine as an art than in its comprehension as a science. One may not cavil at this—indeed, the severely *practical* character of American homœopathic practice is rather a just source of pride—but that this tendency has carried us to a vicious and a dangerous extreme is only too evident.

One evil result of the abuse of this virtue is apparent in our general serial literature. You can almost count on your fingers those well-known contributors to our journals, whose scholarship is not only an indispensable to the true physician, but whose possession reflects honor alike upon the physician and his school.

That in every calling, in every age, a few God-gifted minds shall tower like mountain-tops above their fellows seems to be a law, and it is not especially to such instances that we now refer; for the evidences of self-culture, of earnest work, are fully as palpable in the men to whom we now point as are the indications of genius.

You can now perceive the direction in which the Bureau of Medical Literature has made its research, and your attention is now to be called to some significant facts which are believed to be a direct result of this overpractical, nay, this *pseudo* practical tendency. And here it must be distinctly understood that works and authors are cited not to make invidious comparisons, but solely to point out a danger which must be met *now*.

Inquiry of the publishers elicits the fact that the first edition of Dr. Burt's *Characteristic Materia Medica* is exhausted, and that a second is urgently demanded. Meanwhile, on the shelves of these same publishers, Hahnemann's *Lesser Writings* are mouldering in the dishonoring dust. This is bad enough, but there is a deeper depth, and it would make the ears of every true homœopath tingle to hear it whispered how few copies of Hahnemann's *Organon* are sold in each waning year. The *Organon* and the *Lesser Writings* will make a philosopher; the *Characteristics* may make *a* "practitioner"—God save the mark! The *Characteristic Materia Medica* was published in 1869, and is bought up in three years; the *Organon* came from Radde's press in 1860, and, after mutely appealing to the *disciples of Hahnemann* for thirteen years, is likely to find a grave in the paper-mill. Unfortunately for the precision of this report, the lips of the bureau have been sealed in regard to other publications. The policy of trade will not allow us to name other books, but we may state that in many instances, from editions of fifteen hundred copies, only three hundred and three hundred

and fifty have been sold; this, too, in the case of works which will grace any library and enrich any head that shall hold them.

The inevitable effect of this upon trade is to advance the price of homœopathic publications. Look at the very latest volume from our press—Higgins's *Ophidians*—retailed at two dollars a copy. A legitimate demand from our six thousand American practitioners would reduce the price one hundred per cent.

Simple self-interest, apart from the holier duty of endeavoring to cheapen the very bread of life—for the Ego, the *Me* only lives—prompts to an effort to remedy this evil. As it is, the ignorant and the indolent hold the earnest few who seek that which passeth not away, in a thraldom which is all the more galling because the burden thereof falls not upon the guilty but on the innocent; not upon those whose dereliction of duty incurs it, but on those whose very fealty and unfaltering devotion to duty brings a penalty.

But we must look not only to self, for by the fiat of Omnipotence, whether we will or not, we *are* our brother's keeper, and if the calendar of heaven bears the record of one sin which is beyond the reach of God's charity, it is that of starving a soul. Look to this, and see that by your earnest deed the poor student is fed. Heaven watches the sparrows, but makes an immortal soul your pensioner. Nay, not thus, but if you are prospered with plenty, oh! learn ere the night cometh that it simply means this: God has made you his almoner.

The remedy is that we must publish for ourselves, and thus secure books at absolute cost. That this project is feasible is demonstrated by the prosperity of *The New Sydenham Society*, and the Institute is respectfully referred to an appended copy of its laws for working details.

This society in the first year of its existence issued five volumes at a cost of five dollars (gold). In buying volumes of this very year from Wood, and from Bailliere, of New York, the writer has paid five dollars for a single volume.

Each year's issue is stereotyped, and as each year's subscription pays for the plates, every member gets the actual value of his subscription, and still the plates remain a future source of revenue to the Society. Of course, in time the fund accruing from

this source will enable the annual issuing of a greater number of volumes at an even more reduced cost *to the members.*

Of course, it is not assumed that the cheapening of good medical literature will either create a love for or cultivate an appreciation of knowledge, but it will facilitate the endeavors of the godlike few, in whom chill penury cannot repress the noble rage which gives the soul, even in time, a foretaste of eternity, and exalts man still nearer to the angels.

As a school we have not yet existed a century, yet the harvest is ripe for the sickle. Recall for a moment the treasures now buried in journals and books, so scarce, rare and costly, that even now the majority have to seek them on the shelves of lucky and wealthy *virtuosi.* Only through a publishing society can the students of the present and of the future ever hope to attain all that is desirable of this buried wealth. Recall also the Herculean labor required to open Grauvogl's mine for us English-reading homœopathists, and remember that Hahnemann's grand work is still a sealed book to hundreds. Let us evince a just appreciation of the labors of our predecessors, now gone to their reward; let the good seed sown by them bring forth an hundred and a thousandfold; let us learn to love and honor our heritage; to honor our calling by preserving its literature, resting assured that as we honor ourselves, even so shall we by the world be honored.

We have prospered, but do we know that sublime abnegation of self which now paints a nimbus around the memory of the noble few, whose patient, faithful and unrequited labors in the past have insensibly, but inevitably, made our present.

In a speech made to the Société Gallicane, Hahnemann said: "In an art preservative of human life, *negligence in learning is a crime.*" Let us take it to our hearts, and so do our simple duty, that we may one day go into his presence with clean hands.

To the American Institute of Homœopathy the school must and does look for organized and determined action in this direction.

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